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ATMOSPHERIC STRUCTURE. PART 3. UPPER
AIR AND SURFACE DATA: STALLION SITE

Marjorie M. Hoidale, et al

Army Electronics Command
White Sands Missile Range, New Mexico

January 1975

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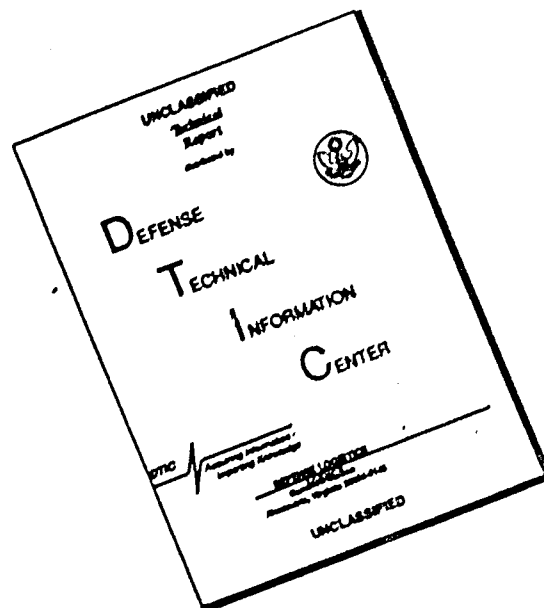
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| 20. ABSTRACT (Continue on reverse side if necessary and identify by block number) A statistical analysis of surface and upper air rawinsonde data is presented for Stallion Site, White Sands Missile Range, New Mexico. Atmospheric parameters covered for the layer from the surface to 100,000 feet above mean sea level are: wind, temperature, pressure, density, moisture, index of refraction and freezing level. Upper air climatological information is based on the period of observation from 1961-1973; while the surface temperature data spans 1962-1973, precipitation records 1963-1973, and wind data 1965-1973. | | |

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FOREWORD

This report is a revision of Data Report 323-*AD 844675* titled "Atmospheric Structure, White Sands Missile Range, New Mexico, Part 3, Upper Air Data: Stallion Site" published in 1968 and Data Report 399, "White *AD 856240* Sands Missile Range Climatology No. 5, Stallion Site" published in 1969.

The revision updates the original records to cover the period through 1973 and combines material previously offered so that surface data and rawinsonde data for each 1,000 feet up to 16,000 feet above mean sea level, as well as rawinsonde data for additional levels up to 100,000 feet, are available in a single report.

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ACKNOWLEDGEMENTS

It would be impossible to acknowledge all whose work have made this report possible; however, the authors do wish to acknowledge the important contribution made by those personnel - military, contractor and civilian - whose efforts made possible the acquisition of upper air and surface records during the years 1961-1973.

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INTRODUCTION

Activities of various projects on Range often necessitate a knowledge of upper air atmospheric conditions or surface data weeks or months in advance of the scheduled mission. As this exceeds the capability of the usual 24-56 hour forecast and the longer five-day outlook, a statistical analysis of exoteric meteorological data is desirable. Missions at specific launch complexes frequently demand a detailed knowledge of conditions for that particular area as opposed to data for the entire Range. For this reason, an analysis has been presented for individual rawinsonde stations proximate to Range test sites and launch complexes (1-6).*

Section 1 of this report, based on rawinsonde data collected during the observational period 1961-1973, presents the frequency of occurrence of the upper air meteorological conditions, and the mean and extreme values classified by months and seasons that can be expected from the surface to 100,000 feet above mean sea level (MSL) at Stallion Site [Figure 1], latitude 33° 48' north, longitude 106° 40' west, elevation 4,940 feet MSL. Seven parameters are analyzed: wind, temperature, pressure, density, moisture, index of refraction and freezing level. Note should be made at this point that White Sands Missile Range (WSMR) rawinsonde releases do not follow a routine schedule, but are taken depending upon the mission requirements [Table I].

Surface measurements of meteorological conditions at Stallion Site consist of wind, temperature, and precipitation data. These are presented in tabular form in Section II.

*Upper air and surface data have been published in earlier reports for White Sands Desert, Holloman, Small Missile Range, Jallen, and Apache Sites. Reports 1 and 2 in the Atmospheric Structure series presented analyses of surface data for "A" Station [7, 8].

EXPLANATION OF TERMS

1. Winds Aloft or Surface Wind

- A. Wind directions are given as the true direction from which the wind is blowing.
- B. Wind speeds are measured in knots (nautical miles per hour).

2. Resultant Wind [9, p.480]

In climatology, the resultant wind is the vectorial average of all wind directions and speeds for a given level at a given place for a certain period, as a month.

It is obtained by resolving each wind observation into components from north and east, summing over the given period, obtaining the averages, and reconvertng the average components into a single vector.

3. Surface Wind Gusts

Wind gusts are characterized by sudden, intermittent increases in speed, with at least nine knots variation between peaks and lulls. The average time interval between peaks and lulls usually should not exceed 20 seconds.

4. Standard Vector Deviation of the Wind [10, p.173, 179, 195-198]

The standard vector deviation of the wind is a measure of dispersion about the end of the mean resultant wind vector. A circle drawn with the center at the end of the mean resultant wind vector and a radius of the standard vector deviation includes 63 per cent of the vector winds.

$$\sigma^2 = \sum \frac{V^2}{N} - V_R^2$$

where,

σ = Standard vector deviation, knots

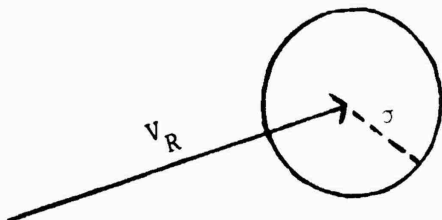
N = Number of cases

V_R = Speed of vector mean wind

V = Module of the vector wind

EXPLANATION OF TERMS

4. Standard Vector Deviation of the Wind [10] (Cont)



5. Constancy [10, pp. 198-199]

Constancy is a term used to show how constant the direction of the wind is. It is determined by dividing the mean scalar wind into the magnitude of the mean resultant wind.

$$Q = \frac{100 V_R}{V_S} \quad (\text{per cent})$$

where,

Q = Constancy of wind direction (per cent)

V_R = Module or speed of vector mean wind

V_S = Speed of scalar mean wind

The constancy of a set of winds is zero when they blow equally frequently from all directions, with the same average speed; the constancy is 100 when they blow from exactly the same direction, but not necessarily all with the same speed.

6. Temperature

- A. Temperatures are reported in degrees Fahrenheit for surface observations and in degrees Celsius for upper air (rawinsonde) observations.
- B. Surface maximum and minimum temperatures are measured by standard liquid-in-glass thermometers which are read and reset each working day. When stations are not manned on weekends and holidays, the extreme temperatures are obtained from calibrated thermographs adjusted to maximum and minimum thermometers.

EXPLANATION OF TERMS

6. Temperature (Cont)

- C. Temperature Extreme. In climatology, the highest and, in some cases, the lowest temperature observed during a given period or during a given month or season of that period. If this is the whole period for which observations are available, it is the absolute extreme [9, p.216].

7. Density [11]

$$\rho_X = 348.38 \left[\frac{p}{K_{VX}} \right] \quad \text{grams/cubic meter}$$

$$K_{VX} = K \left[\frac{p}{p - 0.379e} \right]$$

$$e = 0.0611 f 10^{\left(\frac{7.5C}{C + 237.3} \right)}$$

where,

ρ_X = Density, in grams/cubic meter

p = Pressure, in millibars

K_{VX} = Virtual temperature, in degrees Kelvin

e = Partial pressure of aqueous vapor, in millibars

C = Temperature, in degrees Celsius

$K = C + 273.16$, Temperature, Absolute, in degrees Kelvin

f = Relative humidity, in per cent

8. Index of Refraction [11]

$$n_X = 1 + \frac{77.6}{K} \left[p + e \left(\frac{4830}{K} - \frac{11}{77.6} \right) \right] 10^{-6}$$

EXPLANATION OF TERMS

8. Index of Refraction [11, (Cont)]

$$e = 0.0611 f 10^{\left[\frac{7.5C}{C + 237.3} \right]}$$

where,

n_X = Index of refraction, dimensionless

$K = C + 273.16$, Temperature, Absolute, in degrees Kelvin

C = Temperature, in degrees Celsius

p = Pressure, in millibars

f = Relative humidity, in per cent

e = Partial pressure of aqueous vapor, in millibars

9. Mixing Ratio [9, p.374; 12]

In a system of moist air, the dimensionless ratio of the mass of water vapor to the mass of dry air.

$$\omega = \frac{0.622e}{p - e} \times 10^3$$

where,

ω = Mixing ratio, grams/kilogram

p = Pressure, in millibars

e = Partial pressure of aqueous vapor, in millibars

$$e = r e_s$$

where,

r = Relative humidity, in per cent

e_s = Saturation vapor pressure, in millibars

EXPLANATION OF TERMS

9. Mixing Ratio [9, p.374; 12] (Cont)

$$\log_{10} e_s = -7.90298 \left(\frac{T_s}{T} - 1 \right) + 5.62808 \log_{10} \left(\frac{T_s}{T} \right) - 1.3816 \times 10^{-7}$$

$$\left[10^{11.344 \left(1 - \frac{T}{T_s} \right)} - 1 \right] + 8.1328 \times 10^{-3} \left[10^{-3.49149 \left(\frac{T_s}{T} - 1 \right)} - 1 \right] + \log_{10} e_{ws}$$

where,

T = Dry bulb temperature, in degrees Kelvin

T_s = Steam point temperature, 373.16 degrees Kelvin

e_{ws} = Saturation pressure of pure ordinary liquid water
at steam point temperature (T_s), 1013.246 millibars

10. Precipitable Water [9, p.437; 12]

Precipitable water is defined as the total atmospheric water vapor contained in a vertical column of unit cross-sectional area extending between any two specified levels. It may be expressed as the height to which that water substance would stand if completely condensed and collected in a vessel of the same unit cross section.

Mathematically,

$$W = -\frac{1}{g} \int_{p_1}^{p_2} \omega dp$$

where,

W = Precipitable water vapor, centimeters

ω = Mixing ratio, grams/kilogram

p = Pressure, bounded by p_1 and p_2 , millibars

g = Acceleration of gravity, centimeters per sec²

If g is expressed in cm sec⁻², p in millibars, and ω in g kg⁻¹, then W is in centimeters. With these units, the above equation may be written as:

$$W_{(cm)} = 0.001 \int_{p_1}^{p_2} \omega dp$$

EXPLANATION OF TERMS

10. Precipitable Water [9, p.437; 12] (Cont)

To determine the precipitable water within the various layers, the preceding equation will be numerically integrated. Since the mixing ratio, ω , may be expressed as

$$\omega = \frac{0.622e}{p - e}$$

it is seen that

$$W_{(cm)} = 0.622 \int_{p_1}^{p_2} \frac{e}{p - e} dp$$

where e and p are expressed in millibars. Note that a factor of 10^3 has been introduced to compensate for units.

11. Relative Humidity [9, p.477]

Popularly called humidity. The (dimensionless) ratio of the actual vapor pressure of the air to the saturation vapor pressure. The relative humidity is usually expressed in per cent.

12. Precipitation

Precipitation is measured in a standard eight-inch rain gage, and is recorded in hundredths of an inch. Less than .01 inch is reported as a trace (an amount too small to measure).

13. Season [9, p.499]

A division of the year according to some regularly recurrent phenomena, usually astronomical or climatic.

In middle latitudes four seasons are recognized, which for climatological purposes are (Northern Hemisphere): winter - December, January and February; spring - March, April and May; summer - June, July and August; autumn or fall - September, October and November. The annual course of weather does not always follow these divisions closely, but the use of four periods of three calendar months each is so convenient for statistical purposes that no other division has been seriously considered.

RELIABILITY OF DATA [13]

The standard reliabilities of the instrumentation and the derived data are as follows:

UPPER AIR METEOROLOGICAL PARAMETERS

| <u>Parameter and Instrument Types</u> | <u>Range of Values or Environment</u> | <u>Data Reliability</u> |
|---|--|--|
| WIND VELOCITY | | |
| Rawin Sets, AN/GMD-1A, WBRT-47 (with- out slant range) | Surface to 30 km alt. (98,425 Ft) [2 minutes or 0.6 km (1,969 Ft) mean layer winds] | 6 knots or 12% of vector wind, whichever is greater |
| Rawin Sets, AN/GMD-2, 2A, 4 (with slant range) | Surface to 30 km alt. (98,425 Ft) [2 minutes or 0.6 km (1,969 Ft) mean layer winds] | 4 knots or 10% of vector wind, whichever is greater |
| Rawin using FPS-16 or similar radar | Surface to 30 km alt. (98,425 Ft) [20 seconds or 100 m. (328 Ft) mean layer winds] | 3 knots or 6% of vector wind, whichever is greater |

Note: All rawinsonde mean layer winds are unreliable when tracking angles are within 6 degrees of the horizon or surface obstructions which often occurs under strong jet stream conditions.

DENSITY

| | | |
|--|--|--------------------|
| Rawin Sets AN/GMD-1A*, 2A*, 4*, WTRT-57*, etc. | (15 to 1200 gm/m ³) Surface to 10 km alt. (32,808 Ft) 10 to 30 km alt. (32,808 to 98,425 Ft) | 0.4% 1% |
|--|--|--------------------|

*Density Computed

RELIABILITY OF DATA [13]

UPPER AIR METEOROLOGICAL PARAMETERS

| <u>Parameter and Instrument Types</u> | <u>Range of Values or Environment</u> | <u>Data Reliability</u> |
|--|--|-----------------------------|
| RELATIVE HUMIDITY | | |
| Rawin Sets, AN/GMD-1A, 2A 4, WBRT-57, etc. using ML-476 Hy- gristor or equiv. | (5 to 99%) | |
| | Temperature greater than 0°C | 5% |
| | Temperature 0° to -20°C | 10% |
| | -21°C to -40°C | 20% |
| | Below -40°C | unreliable |
| PRESSURE | | |
| Rawin Sets, AN/GMD-1A, 2A*, 4*, WBRT-57, etc. | 10 to 50 mb | 1.0% |
| | 50 to 200 mb | 0.6% |
| | 200 to 500 mb | 0.3% |
| | greater than 500 mb | 0.2% |
| *Pressure Computed | | |
| INDEX OF REFRACTION | | |
| Rawin Sets*, AN/GMD-1A, 2A, 4, WBRT-57, SMQ-1, 3 | 5 to 200 N-units | 1% |
| | 200 to 400 N-units | 2.5% |
| *Refractive Index Computed | | |
| TEMPERATURE | | |
| Rawin Sets, AN/GMD-1A, 2A, 4, WBRT-57, SMQ 1, etc. using ML- 419 element or equiv. | (-90°C to 60°C) | |
| | Surface to 20 km alt. (65,617 Ft) | 1°C* |
| | 20 km to 30 km alt. (65,617 to 98,425 Ft) | 2.5°C* |
| | | |

*Root Mean Square (RMS) deviations about a mean value which can be considered the best estimate of the measure of the quantity.

RELIABILITY OF DATA [13]

SURFACE METEOROLOGICAL PARAMETERS

| <u>Parameter and Instrument Types</u> | <u>Range of Values or Environment</u> | <u>Data Reliability</u> |
|---|--|------------------------------|
| WIND | | |
| Wind Measuring Set AN/GMQ-11 | Direction 0-360 degrees Speed 1-160 knots | 3 deg. 2.0 knots or 3% |
| RAINFALL | | |
| Precipitation Gauges ML-17, ML-217, etc. | 0.01 to 20 inches | 0.01 inches |
| TEMPERATURE | | |
| Liquid in Glass ML-24, M1-7, etc. | -90°F to + 145°F | 0.5°F* |
| Thermographs, Bimetal & Bourdon tube | -20°F to + 110°F | 2.0°F* |

*Root Mean Square (RMS) deviations about a mean value which can be considered the best estimate of the measure of the quantity.

Manual and computer verification techniques were employed to insure a high degree of accuracy.



FIGURE 1. MAP OF WHITE SANDS MISSILE RANGE

TABLE I
FREQUENCY DISTRIBUTION OF UPPER AIR SOUNDINGS BY HOURS AND MONTHS
PERIOD OF RECORD 1961-1973
STATION SITE

| hour (MST) | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL BY HOURS |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-------------------|
| 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 4 |
| 2 | 2 | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 2 | 0 | 0 | 1 | 10 |
| 3 | 1 | 1 | 0 | 3 | 5 | 2 | 3 | 4 | 4 | 3 | 0 | 0 | 26 |
| 4 | 3 | 4 | 5 | 5 | 8 | 4 | 0 | 3 | 12 | 5 | 5 | 0 | 54 |
| 5 | 1 | 6 | 5 | 4 | 8 | 1 | 7 | 10 | 2 | 5 | 3 | 1 | 53 |
| 6 | 2 | 4 | 6 | 8 | 15 | 12 | 14 | 16 | 4 | 1 | 6 | 2 | 90 |
| 7 | 13 | 13 | 17 | 39 | 33 | 34 | 48 | 39 | 32 | 29 | 12 | 15 | 329 |
| 8 | 40 | 38 | 38 | 61 | 60 | 48 | 57 | 66 | 54 | 73 | 40 | 35 | 619 |
| 9 | 49 | 84 | 79 | 84 | 50 | 40 | 51 | 53 | 47 | 62 | 64 | 58 | 721 |
| 10 | 35 | 44 | 48 | 60 | 44 | 46 | 23 | 32 | 29 | 38 | 42 | 24 | 465 |
| 11 | 38 | 40 | 45 | 64 | 49 | 31 | 30 | 30 | 40 | 31 | 32 | 33 | 463 |
| 12 | 43 | 59 | 42 | 43 | 28 | 27 | 33 | 30 | 31 | 30 | 39 | 26 | 431 |
| 13 | 35 | 33 | 36 | 34 | 45 | 22 | 23 | 26 | 26 | 32 | 27 | 27 | 367 |
| 14 | 37 | 44 | 43 | 43 | 30 | 17 | 14 | 21 | 27 | 30 | 55 | 33 | 393 |
| 15 | 39 | 41 | 32 | 33 | 16 | 14 | 14 | 16 | 13 | 29 | 29 | 27 | 303 |
| 16 | 24 | 17 | 14 | 12 | 11 | 11 | 2 | 7 | 10 | 17 | 14 | 11 | 154 |
| 17 | 12 | 5 | 8 | 4 | 9 | 4 | 3 | 5 | 7 | 9 | 6 | 10 | 82 |
| 18 | 3 | 2 | 2 | 0 | 2 | 3 | 0 | 2 | 1 | 3 | 3 | 3 | 24 |
| 19 | 1 | 2 | 2 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 | 0 | 12 |
| 20 | 1 | 0 | 0 | 0 | 5 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 10 |
| 21 | 1 | 1 | 0 | 0 | 0 | 2 | 1 | 1 | 1 | 0 | 0 | 0 | 7 |
| 22 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 5 |
| 23 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| 24 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 9 |
| TOTAL BY MONTHS | 389 | 439 | 426 | 498 | 430 | 326 | 327 | 365 | 344 | 400 | 382 | 307 | |

4633 UPPER AIR SOUNDINGS WERE TAKEN DURING THIS PERIOD

ATMOSPHERIC STRUCTURE REPORT

STALLION SITE

SECTION I

UPPER AIR WIND DATA

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TABLE II
UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
STALLION SITE
PERIOD OF RECORD 1961-1973

JANUARY

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | MAXIMUM SPEED (KNOTS) | MINIMUM SPEED (KNOTS) | RESULTANT WIND COMPONENTS (KNOTS) | RESULTANT WIND DIRECTION (DEGREES) | WIND SPEED (KNOTS) | SCALAR MEAN SPEED (KNOTS) | CONSTANCY (PERCENT) | STANDARD VECTOR DEVIATION (KNOTS) |
|-----------------------------------|--------------|-----------------------------|-----------------------------|--------------------------------------|--|--------------------------|------------------------------------|------------------------|--|
| | | | | +N -S +E -W | | | | | |
| 4940. | 385. | 24. | 0. | 1.4 -1.0 | 326. | 2. | 4. | 42. | 6. |
| 5000. | 448. | 24. | 0. | 1.1 -.9 | 320. | 1. | 4. | 33. | 7. |
| 6000. | 449. | 27. | 0. | 2.5 -2.2 | 319. | 3. | 8. | 39. | 9. |
| 7000. | 449. | 38. | 1. | 2.5 -5.3 | 295. | 6. | 12. | 48. | 13. |
| 8000. | 447. | 44. | 1. | 3.0 -8.2 | 290. | 9. | 15. | 57. | 15. |
| 9000. | 451. | 51. | 0. | 3.7 -10.3 | 290. | 11. | 17. | 62. | 16. |
| 10000. | 452. | 60. | 1. | 4.7 -12.3 | 291. | 13. | 20. | 67. | 17. |
| 11000. | 455. | 62. | 1. | 5.6 -14.7 | 291. | 16. | 22. | 70. | 19. |
| 12000. | 456. | 63. | 2. | 6.4 -16.8 | 291. | 18. | 25. | 73. | 20. |
| 13000. | 456. | 67. | 1. | 6.7 -19.7 | 290. | 20. | 27. | 74. | 22. |
| 14000. | 455. | 77. | 2. | 6.9 -20.4 | 289. | 22. | 29. | 74. | 24. |
| 15000. | 453. | 80. | 3. | 7.0 -22.0 | 288. | 23. | 31. | 74. | 26. |
| 16000. | 451. | 100. | 3. | 6.9 -23.2 | 287. | 24. | 33. | 74. | 27. |
| 18000. | 446. | 107. | 4. | 6.9 -25.3 | 285. | 26. | 35. | 74. | 30. |
| 20000. | 429. | 119. | 3. | 6.9 -27.3 | 284. | 28. | 38. | 74. | 32. |
| 25000. | 393. | 130. | 6. | 7.8 -31.5 | 284. | 32. | 46. | 71. | 40. |
| 30000. | 363. | 135. | 3. | 8.3 -37.8 | 282. | 39. | 54. | 72. | 46. |
| 35000. | 321. | 143. | 0. | 8.1 -43.8 | 281. | 45. | 60. | 74. | 49. |
| 40000. | 289. | 186. | 10. | 3.2 -52.2 | 273. | 52. | 63. | 83. | 46. |
| 45000. | 260. | 142. | 6. | 3.1 -49.3 | 274. | 49. | 57. | 87. | 36. |
| 50000. | 219. | 111. | 0. | 2.1 -43.9 | 273. | 44. | 49. | 89. | 29. |
| 55000. | 179. | 107. | 5. | 2.4 -37.6 | 274. | 38. | 42. | 91. | 25. |
| 60000. | 164. | 88. | 5. | 1.8 -23.6 | 274. | 24. | 28. | 84. | 21. |
| 65000. | 154. | 112. | 2. | 2.6 -14.8 | 280. | 15. | 19. | 78. | 19. |
| 70000. | 146. | 74. | 1. | 2.0 -7.3 | 285. | 8. | 15. | 50. | 17. |
| 75000. | 139. | 53. | 0. | 2.3 -3.9 | 300. | 5. | 15. | 30. | 18. |
| 80000. | 122. | 63. | 1. | 2.7 -2.5 | 316. | 4. | 17. | 22. | 20. |
| 85000. | 115. | 62. | 2. | 3.1 -.6 | 350. | 3. | 19. | 17. | 22. |
| 90000. | 102. | 74. | 3. | 1.8 -2.0 | 312. | 3. | 21. | 13. | 26. |
| 95000. | 96. | 95. | 2. | 1.1 -4.9 | 282. | 5. | 25. | 20. | 30. |
| 100000. | 74. | 93. | 5. | 2.6 -5.5 | 296. | 6. | 29. | 21. | 34. |

TABLE II (CONT)
UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
STALLION SITE
PERIOD OF RECORD 1961-1973

FEBRUARY

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | MAXIMUM SPEED (KNOTS) | MINIMUM SPEED (KNOTS) | RESULTANT WIND COMPONENTS | RESULTANT WIND DIRECTION (DEGREES) | WIND SPEED (KNOTS) | SCALAR MEAN SPEED (KNOTS) | CONSTANCY (PERCENT) | STANDARD VECTOR DEVIATION (KNOTS) |
|-----------------------------------|--------------|-----------------------------|-----------------------------|------------------------------|--|--------------------------|------------------------------------|------------------------|--|
| | | | | +N -S +E -W | | | | | |
| 4940. | 394. | 24. | 0. | 2.0 | 340. | 2. | 6. | 36. | 7. |
| 5000. | 501. | 24. | 0. | 1.7 | 338. | 2. | 6. | 31. | 7. |
| 6000. | 499. | 37. | 0. | 2.1 | 312. | 3. | 9. | 33. | 10. |
| 7000. | 499. | 63. | 1. | 1.5 | 287. | 5. | 13. | 41. | 14. |
| 8000. | 497. | 44. | 1. | 2.0 | 286. | 7. | 15. | 50. | 15. |
| 9000. | 497. | 46. | 2. | 2.7 | 286. | 10. | 17. | 57. | 16. |
| 10000. | 498. | 56. | 1. | 3.6 | 287. | 12. | 19. | 60. | 18. |
| 11000. | 496. | 66. | 1. | 4.4 | 287. | 15. | 22. | 68. | 19. |
| 12000. | 496. | 65. | 3. | 5.2 | 287. | 17. | 24. | 72. | 20. |
| 13000. | 496. | 73. | 2. | 5.5 | 286. | 20. | 26. | 74. | 22. |
| 14000. | 495. | 78. | 2. | 5.5 | 285. | 21. | 29. | 75. | 24. |
| 15000. | 493. | 84. | 2. | 5.5 | 284. | 23. | 31. | 75. | 25. |
| 16000. | 494. | 86. | 1. | 5.6 | 283. | 24. | 32. | 75. | 27. |
| 18000. | 491. | 88. | 4. | 5.4 | 282. | 27. | 36. | 74. | 30. |
| 20000. | 478. | 103. | 5. | 5.9 | 282. | 30. | 40. | 74. | 34. |
| 25000. | 436. | 156. | 5. | 5.3 | 278. | 38. | 50. | 76. | 41. |
| 30000. | 396. | 202. | 4. | 3.5 | 274. | 47. | 59. | 78. | 46. |
| 35000. | 341. | 179. | 0. | 1.5 | 272. | 58. | 69. | 83. | 50. |
| 40000. | 309. | 166. | 8. | .8 | 271. | 64. | 71. | 89. | 43. |
| 45000. | 274. | 118. | 4. | 1.3 | 271. | 59. | 66. | 91. | 35. |
| 50000. | 233. | 124. | 13. | -.1 | 270. | 52. | 57. | 92. | 29. |
| 55000. | 191. | 79. | 9. | 1.9 | 273. | 42. | 46. | 91. | 25. |
| 60000. | 175. | 75. | 4. | 3.1 | 277. | 25. | 29. | 88. | 20. |
| 65000. | 157. | 65. | 0. | 4.0 | 286. | 15. | 19. | 77. | 17. |
| 70000. | 131. | 44. | 2. | 3.0 | 294. | 8. | 16. | 48. | 16. |
| 75000. | 122. | 47. | 1. | 3.0 | 299. | 6. | 16. | 38. | 18. |
| 80000. | 111. | 50. | 2. | 2.6 | 313. | 4. | 18. | 21. | 21. |
| 85000. | 107. | 61. | 1. | 1.2 | 283. | 5. | 23. | 23. | 27. |
| 90000. | 100. | 88. | 2. | 1.2 | 277. | 10. | 27. | 37. | 31. |
| 95000. | 95. | 88. | 4. | .9 | 275. | 11. | 32. | 33. | 36. |
| 100000. | 73. | 139. | 3. | -.3 | 269. | 13. | 37. | 36. | 42. |

TABLE II (CONT)
UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
STALLION SITE
PERIOD OF RECORD 1961-1973

MARCH

| GEO-METRIC ALTITUDE MSL FEET | TOTAL OBS | MAXIMUM SPEED (KNOTS) | MINIMUM SPEED (KNOTS) | RESULTANT WIND COMPONENTS (KNOTS) | | RESULTANT WIND DIRECTION (DEGREES) | WIND SPEED (KNOTS) | SCALAR MEAN SPEED (KNOTS) | CONSTANCY (PERCENT) | STANDARD VECTOR DEVIATION (KNOTS) |
|------------------------------------|--------------|-----------------------------|-----------------------------|--------------------------------------|-------|--|--------------------------|------------------------------------|------------------------|--|
| | | | | +N | -S | | | | | |
| 4940. | 415. | 30. | 0. | -1.0 | -1.4 | 234. | 2. | 7. | 25. | 9. |
| 5000. | 505. | 30. | 0. | -.8 | -1.1 | 236. | 1. | 7. | 19. | 9. |
| 6000. | 506. | 32. | 1. | -1.1 | -3.0 | 249. | 3. | 10. | 31. | 12. |
| 7000. | 506. | 39. | 1. | -2.1 | -5.5 | 249. | 6. | 13. | 45. | 14. |
| 8000. | 506. | 46. | 1. | -2.1 | -7.7 | 255. | 8. | 15. | 52. | 15. |
| 9000. | 506. | 54. | 0. | -1.9 | -10.0 | 259. | 10. | 17. | 59. | 16. |
| 10000. | 505. | 58. | 0. | -1.5 | -12.8 | 263. | 13. | 19. | 67. | 17. |
| 11000. | 502. | 61. | 2. | -1.0 | -15.8 | 266. | 16. | 22. | 73. | 18. |
| 12000. | 502. | 63. | 2. | -.5 | -18.7 | 268. | 19. | 24. | 76. | 19. |
| 13000. | 502. | 65. | 0. | -.1 | -21.4 | 270. | 21. | 27. | 79. | 20. |
| 14000. | 500. | 71. | 0. | -.1 | -24.1 | 270. | 24. | 30. | 81. | 22. |
| 15000. | 500. | 78. | 3. | -.0 | -26.8 | 270. | 27. | 33. | 82. | 24. |
| 16000. | 500. | 82. | 1. | .0 | -29.3 | 270. | 29. | 35. | 83. | 25. |
| 18000. | 499. | 90. | 1. | -.3 | -33.9 | 270. | 34. | 40. | 84. | 28. |
| 20000. | 490. | 100. | 0. | -1.7 | -38.7 | 267. | 39. | 45. | 86. | 31. |
| 25000. | 441. | 139. | 1. | -6.2 | -50.4 | 263. | 51. | 58. | 87. | 39. |
| 30000. | 397. | 156. | 0. | -7.6 | -59.8 | 263. | 60. | 68. | 88. | 45. |
| 35000. | 329. | 175. | 0. | -6.0 | -63.1 | 265. | 63. | 71. | 90. | 44. |
| 40000. | 269. | 155. | 0. | -4.7 | -61.4 | 266. | 62. | 67. | 92. | 39. |
| 45000. | 242. | 146. | 0. | -6.0 | -56.7 | 264. | 57. | 60. | 95. | 31. |
| 50000. | 208. | 103. | 0. | -5.2 | -48.2 | 264. | 49. | 51. | 95. | 25. |
| 55000. | 173. | 93. | 0. | -3.5 | -40.1 | 265. | 40. | 42. | 96. | 22. |
| 60000. | 152. | 79. | 3. | -3.6 | -22.4 | 261. | 23. | 26. | 88. | 19. |
| 65000. | 136. | 57. | 2. | -1.7 | -13.2 | 263. | 13. | 17. | 78. | 15. |
| 70000. | 129. | 58. | 0. | -.8 | -7.2 | 264. | 7. | 13. | 55. | 15. |
| 75000. | 117. | 54. | 2. | -.6 | -4.6 | 263. | 5. | 13. | 36. | 15. |
| 80000. | 107. | 57. | 2. | -1.1 | -4.9 | 257. | 5. | 16. | 31. | 19. |
| 85000. | 102. | 61. | 0. | -1.2 | -4.1 | 254. | 4. | 17. | 26. | 20. |
| 90000. | 91. | 75. | 1. | -2.5 | -9.1 | 255. | 9. | 22. | 44. | 23. |
| 95000. | 83. | 86. | 4. | -2.3 | -14.7 | 261. | 15. | 26. | 56. | 26. |
| 100000. | 62. | 88. | 0. | -2.2 | -18.5 | 263. | 19. | 31. | 60. | 30. |

TABLE II (CONT)
UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
STATION SITE
PERIOD OF RECORD 1961-1973

APRIL

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | MAXIMUM SPEED (KNOTS) | MINIMUM SPEED (KNOTS) | RESULTANT WIND COMPONENTS (KNOTS) | | RESULTANT DIRECTION (DEGREES) | WIND SPEED (KNOTS) | SCALAR MEAN SPEED (KNOTS) | CONSTANCY (PERCENT) | STANDARD VECTOR DEVIATION (KNOTS) |
|-----------------------------------|--------------|-----------------------------|-----------------------------|--------------------------------------|----|-------------------------------------|--------------------------|------------------------------------|------------------------|--|
| | | | | +N | -S | +E | -W | | | |
| 4940. | 444. | 26. | 0. | -0.6 | | -1.1 | 240. | 1. | 17. | 9. |
| 5000. | 559. | 26. | 0. | -0.9 | | -1.3 | 235. | 2. | 22. | 9. |
| 6000. | 559. | 31. | 0. | -1.7 | | -2.7 | 237. | 3. | 32. | 11. |
| 7000. | 559. | 40. | 1. | -2.9 | | -4.7 | 238. | 6. | 44. | 14. |
| 8000. | 558. | 44. | 1. | -3.6 | | -6.6 | 241. | 7. | 54. | 15. |
| 9000. | 559. | 44. | 0. | -3.9 | | -8.3 | 245. | 9. | 61. | 15. |
| 10000. | 559. | 47. | 1. | -3.9 | | -10.4 | 249. | 11. | 66. | 15. |
| 11000. | 559. | 52. | 1. | -4.1 | | -12.7 | 252. | 13. | 71. | 17. |
| 12000. | 559. | 59. | 1. | -4.5 | | -15.4 | 254. | 16. | 75. | 18. |
| 13000. | 559. | 66. | 1. | -5.0 | | -18.1 | 255. | 19. | 77. | 20. |
| 14000. | 560. | 70. | 2. | -5.4 | | -20.5 | 255. | 21. | 80. | 22. |
| 15000. | 560. | 81. | 0. | -5.7 | | -22.5 | 256. | 23. | 81. | 23. |
| 16000. | 559. | 92. | 0. | -5.9 | | -24.4 | 256. | 25. | 82. | 24. |
| 18000. | 552. | 91. | 0. | -6.9 | | -27.8 | 256. | 29. | 83. | 27. |
| 20000. | 526. | 100. | 0. | -7.5 | | -31.0 | 256. | 32. | 83. | 30. |
| 25000. | 482. | 123. | 2. | -10.7 | | -40.1 | 255. | 41. | 84. | 37. |
| 30000. | 453. | 148. | 0. | -13.0 | | -47.4 | 255. | 49. | 86. | 42. |
| 35000. | 353. | 137. | 0. | -12.1 | | -52.3 | 257. | 54. | 86. | 43. |
| 40000. | 290. | 138. | 0. | -14.8 | | -53.8 | 255. | 56. | 89. | 39. |
| 45000. | 255. | 124. | 0. | -13.3 | | -51.4 | 256. | 53. | 93. | 29. |
| 50000. | 230. | 106. | 3. | -10.7 | | -44.4 | 256. | 46. | 93. | 25. |
| 55000. | 192. | 82. | 9. | -8.9 | | -32.9 | 255. | 34. | 92. | 21. |
| 60000. | 173. | 82. | 0. | -5.3 | | -17.6 | 253. | 18. | 86. | 17. |
| 65000. | 162. | 55. | 0. | -2.9 | | -7.5 | 249. | 13. | 63. | 14. |
| 70000. | 147. | 60. | 1. | -1.2 | | -4 | 201. | 9. | 13. | 12. |
| 75000. | 140. | 55. | 1. | -1.7 | | -1.0 | 212. | 11. | 18. | 14. |
| 80000. | 125. | 34. | 1. | -1.5 | | -1 | 186. | 10. | 14. | 12. |
| 85000. | 116. | 38. | 0. | -1.4 | | -3.2 | 246. | 11. | 31. | 13. |
| 90000. | 110. | 51. | 0. | -2.0 | | -8.5 | 257. | 14. | 64. | 13. |
| 95000. | 98. | 40. | 0. | -2.4 | | -13.1 | 260. | 17. | 80. | 14. |
| 100000. | 73. | 67. | 0. | -1.8 | | -19.9 | 265. | 22. | 92. | 16. |

TABLE II (CONT)
UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
STALLION SITE
PERIOD OF RECORD 1961-1973

MAY

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | MAXIMUM SPEED (KNOTS) | MINIMUM SPEED (KNOTS) | RESULTANT WIND COMPONENTS (KNOTS) | | | RESULTANT DIRECTION (DEGREES) | WIND SPEED (KNOTS) | SCALAR MEAN SPEED (KNOTS) | CONSTANCY (PERCENT) | STANDARD VECTOR DEVIATION (KNOTS) |
|-----------------------------------|--------------|-----------------------------|-----------------------------|--------------------------------------|----|-------|-------------------------------------|--------------------------|------------------------------------|------------------------|--|
| | | | | +N | -S | +E | | | | | |
| 4940. | 443. | 33. | 0. | -1.6 | | -0.8 | 205. | 2. | 7. | 27. | 9. |
| 5000. | 488. | 32. | 0. | -1.5 | | -0.8 | 208. | 2. | 7. | 24. | 9. |
| 6000. | 488. | 30. | 0. | -2.4 | | -2.0 | 221. | 3. | 9. | 34. | 10. |
| 7000. | 488. | 41. | 1. | -4.2 | | -3.8 | 222. | 6. | 11. | 50. | 12. |
| 8000. | 488. | 43. | 1. | -5.0 | | -5.0 | 225. | 7. | 12. | 57. | 13. |
| 9000. | 490. | 46. | 0. | -5.3 | | -6.3 | 230. | 8. | 13. | 63. | 13. |
| 10000. | 491. | 53. | 0. | -5.5 | | -7.7 | 234. | 9. | 14. | 68. | 13. |
| 11000. | 488. | 61. | 0. | -5.7 | | -9.2 | 238. | 11. | 15. | 71. | 14. |
| 12000. | 487. | 68. | 0. | -6.2 | | -11.0 | 241. | 13. | 17. | 75. | 16. |
| 13000. | 485. | 69. | 1. | -6.8 | | -12.7 | 242. | 14. | 19. | 77. | 17. |
| 14000. | 483. | 70. | 1. | -7.2 | | -14.2 | 243. | 16. | 20. | 78. | 18. |
| 15000. | 479. | 74. | 3. | -7.5 | | -15.8 | 245. | 18. | 22. | 79. | 19. |
| 16000. | 478. | 80. | 0. | -7.4 | | -17.2 | 247. | 19. | 24. | 79. | 20. |
| 18000. | 474. | 88. | 0. | -7.6 | | -20.3 | 250. | 22. | 27. | 81. | 22. |
| 20000. | 464. | 104. | 3. | -7.5 | | -23.2 | 252. | 24. | 29. | 83. | 24. |
| 25000. | 449. | 122. | 0. | -8.1 | | -29.3 | 255. | 30. | 36. | 85. | 29. |
| 30000. | 416. | 125. | 0. | -8.1 | | -34.7 | 257. | 36. | 41. | 87. | 32. |
| 35000. | 333. | 152. | 0. | -10.2 | | -41.0 | 256. | 42. | 48. | 89. | 35. |
| 40000. | 285. | 126. | 0. | -8.9 | | -46.2 | 259. | 47. | 52. | 91. | 35. |
| 45000. | 269. | 129. | 0. | -9.1 | | -42.4 | 258. | 43. | 46. | 94. | 27. |
| 50000. | 232. | 96. | 9. | -6.9 | | -35.5 | 259. | 36. | 39. | 94. | 20. |
| 55000. | 188. | 74. | 3. | -4.7 | | -22.9 | 258. | 23. | 26. | 89. | 18. |
| 60000. | 174. | 45. | 0. | -2.5 | | -7.9 | 252. | 8. | 12. | 68. | 12. |
| 65000. | 154. | 30. | 1. | .0 | | -2.2 | 273. | 0. | 8. | 2. | 9. |
| 70000. | 142. | 26. | 0. | -0.0 | | 3.8 | 91. | 4. | 8. | 46. | 9. |
| 75000. | 133. | 21. | 1. | .1 | | 6.1 | 89. | 6. | 9. | 66. | 8. |
| 80000. | 127. | 29. | 2. | -0.3 | | 6.9 | 93. | 7. | 11. | 60. | 11. |
| 85000. | 121. | 33. | 0. | -0.5 | | 6.2 | 95. | 6. | 11. | 54. | 12. |
| 90000. | 115. | 33. | 1. | -1.1 | | 3.4 | 108. | 4. | 12. | 30. | 13. |
| 95000. | 99. | 36. | 0. | -1.7 | | 2.5 | 124. | 3. | 13. | 23. | 15. |
| 100000. | 76. | 41. | 0. | -1.6 | | -0.0 | 182. | 2. | 13. | 12. | 16. |

TABLE II (CONT)
UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
STATION SITE
PERIOD OF RECORD 1961-1973

JUNE

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | MAXIMUM SPEED (KNOTS) | MINIMUM SPEED (KNOTS) | RESULTANT WIND COMPONENTS (KNOTS) | | RESULTANT WIND DIRECTION (DEGREES) | WIND SPEED (KNOTS) | SCALAR MEAN SPEED (KNOTS) | CONSTANCY (PERCENT) | STANDARD VECTOR DEVIATION (KNOTS) |
|-----------------------------------|--------------|-----------------------------|-----------------------------|--------------------------------------|-------|--|--------------------------|------------------------------------|------------------------|--|
| | | | | +N | -S | | | | | |
| 4940. | 343. | 67. | 0. | -1.6 | -0.8 | 205. | 2. | 6. | 28. | 9. |
| 5000. | 369. | 66. | 0. | -1.6 | -0.8 | 207. | 2. | 6. | 28. | 8. |
| 6000. | 370. | 47. | 0. | -2.4 | -2.0 | 220. | 3. | 8. | 38. | 10. |
| 7000. | 369. | 36. | 0. | -3.9 | -3.3 | 220. | 5. | 10. | 50. | 11. |
| 8000. | 370. | 34. | 0. | -4.6 | -4.3 | 223. | 6. | 11. | 55. | 11. |
| 9000. | 370. | 36. | 1. | -4.6 | -5.0 | 227. | 7. | 12. | 56. | 12. |
| 10000. | 373. | 40. | 1. | -4.6 | -5.6 | 231. | 7. | 13. | 58. | 12. |
| 11000. | 373. | 44. | 1. | -4.6 | -6.4 | 234. | 8. | 13. | 60. | 13. |
| 12000. | 375. | 50. | 2. | -4.9 | -7.5 | 237. | 9. | 15. | 61. | 14. |
| 13000. | 373. | 51. | 1. | -5.4 | -8.6 | 238. | 10. | 16. | 62. | 16. |
| 14000. | 373. | 48. | 2. | -5.8 | -9.5 | 239. | 11. | 18. | 63. | 17. |
| 15000. | 371. | 50. | 0. | -6.5 | -10.5 | 238. | 12. | 19. | 65. | 18. |
| 16000. | 370. | 50. | 0. | -7.0 | -11.5 | 239. | 13. | 20. | 66. | 19. |
| 18000. | 367. | 61. | 1. | -7.1 | -13.1 | 242. | 15. | 22. | 66. | 21. |
| 20000. | 360. | 67. | 2. | -7.1 | -14.6 | 244. | 16. | 24. | 68. | 22. |
| 25000. | 333. | 64. | 1. | -6.7 | -18.9 | 250. | 20. | 27. | 74. | 23. |
| 30000. | 309. | 79. | 0. | -6.7 | -23.6 | 254. | 25. | 33. | 75. | 27. |
| 35000. | 257. | 96. | 0. | -6.2 | -29.6 | 258. | 30. | 39. | 77. | 32. |
| 40000. | 220. | 102. | 0. | -5.5 | -34.0 | 261. | 34. | 44. | 79. | 34. |
| 45000. | 203. | 85. | 0. | -5.6 | -34.1 | 261. | 35. | 41. | 83. | 29. |
| 50000. | 191. | 79. | 0. | -5.6 | -24.1 | 257. | 25. | 30. | 82. | 22. |
| 55000. | 171. | 46. | 1. | -3.7 | -9.8 | 249. | 11. | 17. | 63. | 15. |
| 60000. | 158. | 45. | 0. | -3.6 | 3.3 | 137. | 5. | 11. | 45. | 11. |
| 65000. | 139. | 47. | 1. | -1.6 | 10.5 | 99. | 11. | 12. | 85. | 9. |
| 70000. | 133. | 30. | 1. | -1.3 | 13.7 | 96. | 14. | 15. | 94. | 8. |
| 75000. | 128. | 34. | 0. | -0.6 | 17.4 | 92. | 17. | 18. | 97. | 7. |
| 80000. | 124. | 39. | 6. | -1.1 | 19.5 | 93. | 20. | 20. | 96. | 9. |
| 85000. | 118. | 41. | 4. | -0.2 | 20.5 | 91. | 20. | 21. | 98. | 9. |
| 90000. | 112. | 43. | 4. | -1.8 | 20.7 | 95. | 21. | 22. | 96. | 10. |
| 95000. | 100. | 46. | 0. | -0.9 | 22.9 | 92. | 23. | 24. | 97. | 11. |
| 100000. | 85. | 43. | 0. | -2.1 | 23.9 | 95. | 24. | 25. | 97. | 11. |

TABLE II (CONT)
UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
STALLION SITE
PERIOD OF RECORD 1961-1973

JULY

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | MAXIMUM SPEED (KNOTS) | MINIMUM SPEED (KNOTS) | RESULTANT WIND COMPONENTS (KNOTS) | | RESULTANT WIND DIRECTION (DEGREES) | WIND SPEED (KNOTS) | SCALAR MEAN SPEED (KNOTS) | CONSTANCY (PERCENT) | STANDARD VECTOR DEVIATION (KNOTS) |
|-----------------------------------|--------------|-----------------------------|-----------------------------|--------------------------------------|----|--|--------------------------|------------------------------------|------------------------|--|
| | | | | +N | -S | +E | -W | | | |
| 4940. | 363. | 22. | 0. | -0.1 | | .9 | 95. | 1. | 22. | 6. |
| 5000. | 386. | 22. | 0. | -0.2 | | .9 | 99. | 1. | 21. | 6. |
| 6000. | 386. | 23. | 0. | -0.8 | | .6 | 140. | 1. | 17. | 7. |
| 7000. | 386. | 27. | 0. | -2.4 | | .8 | 198. | 2. | 34. | 8. |
| 8000. | 386. | 31. | 1. | -2.3 | | -1.9 | 218. | 3. | 38. | 9. |
| 9000. | 388. | 23. | 1. | -1.5 | | -1.8 | 231. | 2. | 29. | 9. |
| 10000. | 389. | 25. | 0. | -0.7 | | -1.5 | 247. | 2. | 20. | 9. |
| 11000. | 391. | 27. | 1. | .0 | | -0.9 | 271. | 1. | 11. | 10. |
| 12000. | 392. | 27. | 0. | .3 | | -0.2 | 329. | 0. | 4. | 10. |
| 13000. | 392. | 26. | 0. | .6 | | .7 | 50. | 1. | 9. | 11. |
| 14000. | 392. | 31. | 1. | .5 | | 1.4 | 69. | 1. | 14. | 12. |
| 15000. | 391. | 36. | 1. | .5 | | 1.8 | 76. | 2. | 17. | 12. |
| 16000. | 390. | 37. | 1. | .5 | | 2.1 | 77. | 2. | 19. | 13. |
| 18000. | 388. | 39. | 0. | .5 | | 1.9 | 75. | 2. | 17. | 13. |
| 20000. | 383. | 37. | 1. | .1 | | .6 | 79. | 1. | 6. | 13. |
| 25000. | 353. | 41. | 1. | -0.8 | | -1.4 | 239. | 2. | 13. | 14. |
| 30000. | 335. | 53. | 1. | -1.8 | | -3.0 | 239. | 4. | 22. | 18. |
| 35000. | 294. | 56. | 0. | -0.7 | | -4.9 | 261. | 5. | 25. | 22. |
| 40000. | 244. | 63. | 2. | .7 | | -6.2 | 277. | 6. | 28. | 25. |
| 45000. | 218. | 49. | 2. | .8 | | -4.5 | 280. | 5. | 23. | 22. |
| 50000. | 205. | 41. | 0. | .6 | | 1.4 | 68. | 1. | 10. | 16. |
| 55000. | 174. | 35. | 1. | -2.2 | | 6.0 | 110. | 6. | 58. | 11. |
| 60000. | 165. | 31. | 2. | -1.4 | | 12.5 | 96. | 13. | 90. | 8. |
| 65000. | 153. | 31. | 3. | -1.3 | | 18.6 | 94. | 19. | 97. | 7. |
| 70000. | 147. | 38. | 5. | -1.5 | | 21.8 | 94. | 22. | 98. | 8. |
| 75000. | 141. | 42. | 11. | -0.9 | | 24.6 | 92. | 25. | 98. | 7. |
| 80000. | 138. | 45. | 15. | -1.2 | | 27.7 | 92. | 28. | 99. | 7. |
| 85000. | 129. | 51. | 18. | -0.6 | | 31.3 | 91. | 31. | 99. | 8. |
| 90000. | 122. | 52. | 21. | -0.8 | | 34.9 | 91. | 35. | 99. | 8. |
| 95000. | 116. | 57. | 24. | -1.5 | | 37.8 | 92. | 38. | 99. | 8. |
| 100000. | 105. | 61. | 27. | -2.6 | | 38.2 | 94. | 39. | 99. | 10. |

TABLE II (CONT)
UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
STALLION SITE
PERIOD OF RECORD 1961-1973

AUGUST

| GEO-METRIC ALTITUDE MSL FEET | TOTAL OBS | MAXIMUM SPEED (KNOTS) | MINIMUM SPEED (KNOTS) | RESULTANT WIND COMPONENTS (KNOTS) | | | RESULTANT WIND DIRECTION (DEGREES) | WIND SPEED (KNOTS) | SCALAR MEAN SPEED (KNOTS) | CONSTANCY (PERCENT) | STANDARD VECTOR DEVIATION (KNOTS) |
|------------------------------------|--------------|-----------------------------|-----------------------------|--------------------------------------|----|------|--|--------------------------|------------------------------------|------------------------|--|
| | | | | +N | -S | +E | -W | | | | |
| 4940. | 384. | 17. | 0. | .3 | | .4 | 51. | 1. | 4. | 12. | 6. |
| 5000. | 407. | 17. | 0. | .2 | | .4 | 64. | 0. | 4. | 11. | 6. |
| 6000. | 407. | 16. | 0. | -.2 | | .2 | 144. | 0. | 6. | 4. | 7. |
| 7000. | 408. | 26. | 0. | -1.9 | | -.8 | 203. | 2. | 8. | 28. | 9. |
| 8000. | 408. | 31. | 0. | -2.3 | | -1.6 | 214. | 3. | 8. | 33. | 9. |
| 9000. | 410. | 28. | 0. | -1.7 | | -1.6 | 223. | 2. | 9. | 27. | 10. |
| 10000. | 410. | 31. | 0. | -.9 | | -1.4 | 237. | 2. | 9. | 19. | 10. |
| 11000. | 411. | 32. | 1. | -.5 | | -1.1 | 244. | 1. | 10. | 13. | 11. |
| 12000. | 411. | 32. | 1. | -.4 | | -.7 | 240. | 1. | 10. | 8. | 12. |
| 13000. | 412. | 33. | 1. | -.3 | | -.2 | 207. | 0. | 11. | 3. | 12. |
| 14000. | 411. | 33. | 1. | -.3 | | .2 | 145. | 0. | 11. | 4. | 13. |
| 15000. | 411. | 32. | 0. | -.4 | | .5 | 129. | 1. | 12. | 5. | 13. |
| 16000. | 410. | 31. | 0. | -.5 | | .5 | 137. | 1. | 12. | 6. | 13. |
| 18000. | 406. | 32. | 1. | -.7 | | -.2 | 199. | 1. | 12. | 6. | 14. |
| 20000. | 404. | 35. | 0. | -.8 | | -1.2 | 237. | 1. | 12. | 11. | 14. |
| 25000. | 385. | 56. | 0. | -1.0 | | -2.9 | 250. | 3. | 14. | 21. | 16. |
| 30000. | 369. | 70. | 1. | -.9 | | -5.5 | 261. | 6. | 19. | 30. | 21. |
| 35000. | 330. | 74. | 0. | .3 | | -7.4 | 272. | 7. | 22. | 34. | 24. |
| 40000. | 296. | 77. | 0. | 1.2 | | -9.5 | 277. | 10. | 24. | 39. | 27. |
| 45000. | 260. | 63. | 3. | 2.2 | | -8.1 | 285. | 8. | 22. | 38. | 24. |
| 50000. | 238. | 45. | 1. | .6 | | -3.4 | 280. | 3. | 15. | 23. | 17. |
| 55000. | 212. | 28. | 1. | -1.1 | | 3.5 | 107. | 4. | 10. | 36. | 11. |
| 60000. | 198. | 34. | 0. | -1.1 | | 10.4 | 96. | 10. | 13. | 83. | 9. |
| 65000. | 189. | 34. | 0. | -.9 | | 15.9 | 93. | 16. | 17. | 96. | 8. |
| 70000. | 176. | 33. | 0. | -1.3 | | 19.8 | 94. | 20. | 20. | 98. | 7. |
| 75000. | 166. | 39. | 10. | -.4 | | 23.9 | 91. | 24. | 24. | 99. | 7. |
| 80000. | 158. | 47. | 13. | -1.5 | | 27.1 | 93. | 27. | 27. | 99. | 7. |
| 85000. | 154. | 45. | 16. | -.7 | | 29.5 | 91. | 29. | 30. | 99. | 8. |
| 90000. | 137. | 56. | 18. | -.3 | | 32.6 | 90. | 33. | 33. | 99. | 8. |
| 95000. | 123. | 55. | 0. | -.6 | | 33.9 | 91. | 34. | 34. | 99. | 9. |
| 100000. | 106. | 55. | 20. | -1.7 | | 37.2 | 93. | 37. | 38. | 99. | 10. |

TABLE II (CONT)
UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
STALLION SITE
PERIOD OF RECORD 1961-1973

SEPTEMBER

| GEO. ALTITUDE MSL FEET | TOTAL OBS | MAXIMUM SPEED (KNOTS) | MINIMUM SPEED (KNOTS) | RESULTANT WIND COMPONENTS (KNOTS) | RESULTANT WIND DIRECTION (DEGREES) | WIND SPEED (KNOTS) | SCALAR MEAN SPEED (KNOTS) | CONSTANCY (PERCENT) | STANDARD VECTOR DEVIATION (KNOTS) |
|---------------------------|--------------|-----------------------------|-----------------------------|--------------------------------------|--|--------------------------|------------------------------------|------------------------|--|
| | | | | +N -S +E -W | | | | | |
| 4940. | 324. | 20. | 0. | .2 -.0 | 357. | 0. | 5. | 4. | 6. |
| 5000. | 366. | 20. | 0. | .0 -.2 | 286. | 0. | 5. | 3. | 6. |
| 6000. | 365. | 23. | 0. | -.3 -.9 | 249. | 1. | 7. | 13. | 8. |
| 7000. | 366. | 38. | 0. | -1.9 -2.5 | 233. | 3. | 9. | 35. | 10. |
| 8000. | 366. | 37. | 1. | -2.7 -3.6 | 233. | 4. | 10. | 43. | 11. |
| 9000. | 367. | 32. | 1. | -2.7 -4.4 | 239. | 5. | 11. | 46. | 12. |
| 10000. | 366. | 34. | 1. | -2.5 -5.2 | 245. | 6. | 12. | 48. | 12. |
| 11000. | 365. | 42. | 1. | -2.3 -6.0 | 249. | 6. | 13. | 50. | 13. |
| 12000. | 365. | 49. | 0. | -2.2 -6.8 | 252. | 7. | 14. | 52. | 15. |
| 13000. | 365. | 63. | 0. | -2.1 -7.7 | 255. | 8. | 15. | 54. | 16. |
| 14000. | 365. | 58. | 1. | -1.9 -8.3 | 257. | 9. | 16. | 55. | 16. |
| 15000. | 364. | 61. | 2. | -1.8 -9.0 | 259. | 9. | 16. | 57. | 17. |
| 16000. | 364. | 69. | 1. | -1.6 -9.8 | 261. | 10. | 17. | 59. | 18. |
| 18000. | 362. | 78. | 1. | -1.8 -11.6 | 261. | 12. | 18. | 64. | 19. |
| 20000. | 360. | 69. | 1. | -2.4 -13.6 | 260. | 14. | 20. | 69. | 20. |
| 25000. | 346. | 86. | 3. | -3.0 -18.2 | 261. | 18. | 25. | 73. | 24. |
| 30000. | 326. | 114. | 0. | -4.3 -25.1 | 260. | 25. | 33. | 78. | 29. |
| 35000. | 278. | 113. | 0. | -4.5 -34.3 | 262. | 35. | 42. | 82. | 32. |
| 40000. | 254. | 101. | 0. | -5.7 -42.4 | 262. | 43. | 48. | 89. | 29. |
| 45000. | 233. | 100. | 5. | -5.4 -39.9 | 262. | 40. | 44. | 91. | 26. |
| 50000. | 220. | 90. | 4. | -4.2 -29.1 | 262. | 29. | 33. | 89. | 20. |
| 55000. | 197. | 55. | 0. | -2.7 -13.2 | 259. | 13. | 18. | 77. | 15. |
| 60000. | 185. | 43. | 0. | -1.5 -2.0 | 233. | 2. | 10. | 24. | 12. |
| 65000. | 175. | 28. | 2. | -1.4 3.9 | 110. | 4. | 10. | 42. | 10. |
| 70000. | 164. | 32. | 1. | -.1 8.5 | 91. | 8. | 11. | 76. | 10. |
| 75000. | 158. | 31. | 1. | -.0 12.0 | 90. | 12. | 13. | 89. | 10. |
| 80000. | 152. | 31. | 2. | -.5 13.4 | 92. | 13. | 15. | 92. | 9. |
| 85000. | 144. | 36. | 0. | -.3 13.7 | 91. | 14. | 15. | 89. | 11. |
| 90000. | 132. | 36. | 0. | -.2 14.5 | 91. | 15. | 16. | 91. | 11. |
| 95000. | 116. | 32. | 0. | -.2 14.2 | 91. | 14. | 16. | 87. | 11. |
| 100000. | 103. | 44. | 0. | -1.1 15.6 | 94. | 16. | 18. | 86. | 13. |

TABLE II (CONT)
UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
STALLION SITE
PERIOD OF RECORD 1961-1973

OCTOBER

| GEOGRAPHIC ALTITUDE MSL FEET | TOTAL OBS | MAXIMUM SPEED (KNOTS) | MINIMUM SPEED (KNOTS) | RESULTANT WIND COMPONENTS (KNOTS) | | RESULTANT DIRECTION (DEGREES) | WIND SPEED (KNOTS) | SCALAR MEAN SPEED (KNOTS) | CONSTANCY (PERCENT) | STANDARD VECTOR DEVIATION (KNOTS) |
|------------------------------------|--------------|-----------------------------|-----------------------------|--------------------------------------|----|-------------------------------------|--------------------------|------------------------------------|------------------------|--|
| | | | | +N | -S | +E | -W | | | |
| 4940. | 367. | 28. | 0. | .4 | | .5 | 53. | 1. | 12. | 7. |
| 5000. | 415. | 28. | 0. | .5 | | .4 | 38. | 1. | 12. | 7. |
| 6000. | 415. | 35. | 0. | -.2 | | -.4 | 242. | 0. | 6. | 9. |
| 7000. | 416. | 45. | 1. | -1.9 | | -2.7 | 235. | 3. | 34. | 11. |
| 8000. | 416. | 56. | 1. | -2.0 | | -4.6 | 246. | 5. | 45. | 12. |
| 9000. | 416. | 55. | 0. | -1.8 | | -5.9 | 253. | 6. | 50. | 13. |
| 10000. | 417. | 52. | 0. | -1.5 | | -7.4 | 258. | 8. | 55. | 14. |
| 11000. | 417. | 52. | 0. | -1.2 | | -8.9 | 262. | 9. | 59. | 15. |
| 12000. | 417. | 60. | 0. | -.9 | | -10.3 | 265. | 10. | 61. | 17. |
| 13000. | 418. | 66. | 0. | -.8 | | -11.4 | 266. | 11. | 62. | 18. |
| 14000. | 418. | 69. | 0. | -.5 | | -12.0 | 268. | 12. | 62. | 19. |
| 15000. | 416. | 73. | 0. | -.3 | | -12.6 | 268. | 13. | 61. | 21. |
| 16000. | 416. | 77. | 0. | -.3 | | -13.0 | 269. | 13. | 61. | 21. |
| 18000. | 415. | 84. | 0. | .0 | | -14.2 | 270. | 14. | 61. | 24. |
| 20000. | 411. | 90. | 1. | -.1 | | -15.7 | 270. | 16. | 62. | 25. |
| 25000. | 389. | 122. | 0. | -.8 | | -19.9 | 268. | 20. | 65. | 30. |
| 30000. | 364. | 144. | 0. | -2.4 | | -25.0 | 264. | 25. | 66. | 37. |
| 35000. | 316. | 116. | 0. | -3.9 | | -32.0 | 263. | 32. | 72. | 40. |
| 40000. | 289. | 121. | 0. | -2.6 | | -38.6 | 266. | 39. | 78. | 41. |
| 45000. | 256. | 124. | 2. | -1.8 | | -39.2 | 267. | 47. | 84. | 33. |
| 50000. | 248. | 89. | 0. | -1.3 | | -30.4 | 268. | 30. | 87. | 25. |
| 55000. | 221. | 86. | 0. | 1.2 | | -19.9 | 273. | 20. | 84. | 19. |
| 60000. | 213. | 86. | 0. | .8 | | -6.9 | 276. | 7. | 55. | 14. |
| 65000. | 202. | 86. | 1. | .1 | | -4.3 | 271. | 4. | 42. | 13. |
| 70000. | 196. | 48. | 0. | .4 | | -1.8 | 283. | 2. | 21. | 10. |
| 75000. | 186. | 42. | 0. | -.3 | | -.9 | 255. | 1. | 9. | 12. |
| 80000. | 175. | 39. | 0. | .4 | | -2.5 | 280. | 3. | 23. | 13. |
| 85000. | 165. | 42. | 0. | .4 | | -5.1 | 275. | 5. | 40. | 14. |
| 90000. | 152. | 55. | 0. | .0 | | -10.2 | 270. | 10. | 62. | 17. |
| 95000. | 134. | 49. | 0. | .6 | | -13.1 | 273. | 13. | 69. | 19. |
| 100000. | 114. | 53. | 0. | -1.3 | | -16.1 | 265. | 16. | 75. | 20. |

TABLE II (CONT)
UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
STALLION SITE
PERIOD OF RECORD 1961-1973

NOVEMBER

| GEO-METRIC ALTITUDE MSL FEET | TOTAL OBS | MAXIMUM SPEED (KNOTS) | MINIMUM SPEED (KNOTS) | RESULTANT WIND COMPONENTS (KNOTS) | RESULTANT WIND DIRECTION (DEGREES) | WIND SPEED (KNOTS) | SCALAR MEAN SPEED (KNOTS) | CONSTANCY (PERCENT) | STANDARD VECTOR DEVIATION (KNOTS) |
|------------------------------------|--------------|-----------------------------|-----------------------------|--------------------------------------|--|--------------------------|------------------------------------|------------------------|--|
| | | | | +N -S +E -W | | | | | |
| 4940. | 348. | 56. | 0. | .9 -.1 | 351. | 1. | 5. | 16. | 8. |
| 5000. | 406. | 55. | 0. | 1.0 -.3 | 342. | 1. | 5. | 19. | 8. |
| 6000. | 405. | 41. | 0. | 1.2 -1.7 | 306. | 2. | 9. | 24. | 10. |
| 7000. | 405. | 68. | 0. | .1 -4.3 | 271. | 4. | 12. | 34. | 14. |
| 8000. | 406. | 67. | 1. | .4 -7.0 | 273. | 7. | 15. | 46. | 16. |
| 9000. | 407. | 64. | 2. | 1.1 -9.2 | 277. | 9. | 17. | 55. | 17. |
| 10000. | 407. | 71. | 2. | 1.7 -11.5 | 279. | 12. | 19. | 61. | 18. |
| 11000. | 408. | 74. | 1. | 2.2 -13.5 | 279. | 14. | 21. | 65. | 19. |
| 12000. | 405. | 80. | 1. | 2.5 -15.5 | 279. | 16. | 23. | 68. | 20. |
| 13000. | 404. | 82. | 1. | 2.5 -17.3 | 278. | 18. | 25. | 70. | 22. |
| 14000. | 404. | 84. | 1. | 2.5 -19.0 | 277. | 19. | 27. | 71. | 23. |
| 15000. | 403. | 85. | 1. | 2.5 -20.7 | 277. | 21. | 29. | 72. | 25. |
| 16000. | 403. | 86. | 1. | 2.5 -22.1 | 276. | 22. | 31. | 72. | 26. |
| 18000. | 402. | 109. | 1. | 3.0 -25.0 | 277. | 25. | 35. | 72. | 30. |
| 20000. | 391. | 121. | 0. | 3.3 -27.4 | 277. | 28. | 38. | 72. | 33. |
| 25000. | 345. | 122. | 0. | 2.8 -34.6 | 275. | 35. | 48. | 73. | 41. |
| 30000. | 322. | 138. | 0. | 2.7 -41.6 | 274. | 42. | 56. | 74. | 47. |
| 35000. | 293. | 137. | 0. | 1.9 -45.2 | 272. | 45. | 58. | 78. | 48. |
| 40000. | 233. | 139. | 0. | .7 -52.6 | 271. | 53. | 63. | 84. | 44. |
| 45000. | 211. | 134. | 7. | -.2 -51.2 | 270. | 51. | 58. | 88. | 36. |
| 50000. | 193. | 89. | 0. | -.4 -41.6 | 269. | 42. | 47. | 88. | 29. |
| 55000. | 164. | 76. | 0. | -1.7 -33.1 | 267. | 33. | 37. | 89. | 24. |
| 60000. | 152. | 66. | 0. | -.3 -20.2 | 269. | 20. | 25. | 82. | 19. |
| 65000. | 148. | 56. | 0. | .1 -13.5 | 271. | 13. | 18. | 75. | 16. |
| 70000. | 143. | 48. | 2. | 1.4 -10.7 | 277. | 11. | 16. | 66. | 16. |
| 75000. | 134. | 59. | 2. | 1.4 -10.8 | 277. | 11. | 16. | 66. | 16. |
| 80000. | 130. | 62. | 0. | 1.4 -14.6 | 275. | 15. | 20. | 74. | 19. |
| 85000. | 122. | 78. | 1. | .6 -17.8 | 272. | 18. | 23. | 78. | 21. |
| 90000. | 112. | 86. | 0. | -1.7 -23.3 | 266. | 23. | 29. | 81. | 26. |
| 95000. | 93. | 117. | 0. | -3.4 -30.2 | 264. | 30. | 34. | 89. | 29. |
| 100000. | 73. | 121. | 0. | -3.3 -35.1 | 265. | 35. | 40. | 89. | 32. |

TABLE 11 (CONT)
UPPER AIR WIND DATA AT SELECTED LEVELS BY MONTHS
STATION: SITE
PERIOD OF RECORD 1961-1973

DECEMBER

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | MAXIMUM SPEED (KNOTS) | MINIMUM SPEED (KNOTS) | RESULTANT WIND COMPONENTS (KNOTS) | | | RESULTANT DIRECTION (DEGREES) | WIND SPEED (KNOTS) | SCALAR MEAN SPEED (KNOTS) | CONSTANCY (PERCENT) | STANDARD VECTOR DEVIATION (KNOTS) |
|-----------------------------------|--------------|-----------------------------|-----------------------------|--------------------------------------|----|-------|-------------------------------------|--------------------------|------------------------------------|------------------------|--|
| | | | | +N | -S | +E | -W | | | | |
| 4940. | 296. | 22. | 0. | 1.1 | | -0.3 | 344. | 1. | 4. | 29. | 6. |
| 5000. | 320. | 22. | 0. | 1.3 | | -0.4 | 341. | 1. | 4. | 31. | 6. |
| 6000. | 321. | 31. | 0. | 1.5 | | -2.0 | 306. | 3. | 8. | 30. | 9. |
| 7000. | 321. | 44. | 0. | -0.5 | | -5.3 | 264. | 5. | 12. | 44. | 13. |
| 8000. | 321. | 51. | 1. | -0.8 | | -0.1 | 264. | 8. | 15. | 54. | 15. |
| 9000. | 326. | 52. | 1. | 0.2 | | -10.6 | 271. | 11. | 17. | 62. | 16. |
| 10000. | 327. | 54. | 0. | 1.1 | | -13.1 | 275. | 13. | 19. | 68. | 18. |
| 11000. | 327. | 65. | 0. | 1.5 | | -15.7 | 275. | 16. | 22. | 71. | 20. |
| 12000. | 327. | 64. | 0. | 1.5 | | -18.0 | 275. | 18. | 25. | 73. | 22. |
| 13000. | 327. | | 3. | 1.2 | | -20.2 | 273. | 20. | 27. | 74. | 24. |
| 14000. | 327. | 75. | 3. | 0.8 | | -21.9 | 272. | 22. | 29. | 74. | 25. |
| 15000. | 326. | 61. | 2. | 0.6 | | -23.2 | 271. | 23. | 31. | 75. | 27. |
| 16000. | 326. | 82. | 0. | 0.6 | | -24.5 | 271. | 24. | 33. | 75. | 28. |
| 18000. | 324. | 104. | 0. | 0.2 | | -27.4 | 270. | 27. | 35. | 76. | 31. |
| 20000. | 319. | 111. | 2. | -0.5 | | -30.4 | 269. | 30. | 40. | 76. | 34. |
| 25000. | 303. | 164. | 1. | -1.3 | | -39.3 | 268. | 39. | 51. | 77. | 44. |
| 30000. | 273. | 183. | 0. | -4.5 | | -45.6 | 264. | 46. | 58. | 79. | 50. |
| 35000. | 242. | 162. | 0. | -5.5 | | -47.9 | 263. | 48. | 61. | 79. | 54. |
| 40000. | 215. | 156. | 3. | -4.9 | | -53.2 | 265. | 53. | 63. | 84. | 48. |
| 45000. | 188. | 133. | 4. | -4.8 | | -49.5 | 264. | 50. | 56. | 88. | 36. |
| 50000. | 176. | 111. | 0. | -3.2 | | -42.5 | 266. | 43. | 48. | 89. | 31. |
| 55000. | 153. | 100. | 6. | -1.9 | | -37.6 | 267. | 38. | 41. | 91. | 26. |
| 60000. | 150. | 97. | 0. | -0.8 | | -24.2 | 268. | 24. | 28. | 87. | 22. |
| 65000. | 145. | 74. | 0. | 1.9 | | -14.4 | 277. | 15. | 19. | 77. | 18. |
| 70000. | 137. | 60. | 2. | 1.7 | | -11.8 | 278. | 12. | 17. | 71. | 17. |
| 75000. | 135. | 71. | 2. | 2.2 | | -9.8 | 282. | 10. | 17. | 61. | 18. |
| 80000. | 132. | 89. | 2. | 2.3 | | -12.1 | 281. | 12. | 19. | 64. | 21. |
| 85000. | 126. | 100. | 1. | 3.0 | | -17.8 | 280. | 18. | 24. | 75. | 25. |
| 90000. | 120. | 95. | 1. | 0.2 | | -24.7 | 270. | 25. | 30. | 82. | 27. |
| 95000. | 113. | 120. | 0. | -2.5 | | -35.4 | 266. | 35. | 40. | 90. | 33. |
| 100000. | 92. | 125. | 0. | -5.2 | | -47.1 | 264. | 47. | 50. | 94. | 37. |

TABLE III
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973
JANUARY

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | WIND DIRECTIONS (DEGREES) | | | | | | | | | | | | CALM, |
|----------------------------------|--------------|---------------------------|------------|------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| | | >360 <30 | >30 <60 | >60 <90 | >90 <120 | >120 <150 | >150 <180 | >180 <210 | >210 <240 | >240 <270 | >270 <300 | >300 <330 | >330 <360 | |
| 4940. | 385. | 10. | 4. | 1. | 1. | 2. | 3. | 7. | 6. | 4. | 4. | 6. | 15. | 37. |
| 5000. | 448. | 11. | 3. | 3. | 1. | 1. | 3. | 9. | 6. | 4. | 4. | 7. | 18. | 31. |
| 6000. | 449. | 8. | 4. | 5. | 6. | 1. | 1. | 7. | 8. | 8. | 8. | 15. | 29. | 1. |
| 7000. | 449. | 7. | 4. | 2. | 2. | 1. | 3. | 7. | 13. | 10. | 13. | 19. | 19. | 0. |
| 8000. | 447. | 6. | 5. | 2. | 1. | 1. | 1. | 7. | 14. | 14. | 13. | 24. | 13. | 0. |
| 9000. | 451. | 5. | 4. | 2. | 1. | 1. | 1. | 4. | 14. | 16. | 18. | 23. | 11. | 0. |
| 10000. | 452. | 5. | 4. | 2. | 1. | 1. | 2. | 2. | 12. | 17. | 22. | 20. | 13. | 0. |
| 11000. | 455. | 5. | 4. | 2. | 1. | 0. | 1. | 2. | 19. | 18. | 23. | 23. | 11. | 0. |
| 12000. | 456. | 4. | 3. | 2. | 1. | 0. | 1. | 2. | 8. | 18. | 25. | 23. | 14. | 0. |
| 13000. | 456. | 4. | 3. | 2. | 1. | 0. | 1. | 2. | 7. | 18. | 26. | 22. | 14. | 0. |
| 14000. | 455. | 5. | 4. | 1. | 1. | 1. | 1. | 2. | 8. | 16. | 28. | 22. | 12. | 0. |
| 15000. | 453. | 4. | 4. | 1. | 1. | 0. | 0. | 2. | 8. | 17. | 28. | 22. | 11. | 0. |
| 16000. | 451. | 6. | 4. | 1. | 1. | 0. | 0. | 1. | 9. | 19. | 28. | 21. | 9. | 0. |
| 18000. | 446. | 5. | 3. | 1. | 1. | 1. | 0. | 2. | 9. | 19. | 30. | 19. | 10. | 0. |
| 20000. | 429. | 5. | 3. | 1. | 1. | 1. | 0. | 2. | 8. | 22. | 28. | 17. | 11. | 0. |
| 25000. | 393. | 5. | 3. | 2. | 1. | 0. | 1. | 2. | 9. | 21. | 23. | 22. | 12. | 0. |
| 30000. | 363. | 6. | 3. | 2. | 0. | 1. | 1. | 2. | 6. | 26. | 22. | 23. | 7. | 0. |
| 35000. | 321. | 4. | 4. | 2. | 1. | 0. | 0. | 2. | 7. | 30. | 22. | 20. | 8. | 1. |
| 40000. | 289. | 2. | 0. | 3. | 0. | 0. | 0. | 0. | 7. | 35. | 32. | 14. | 6. | 0. |
| 45000. | 260. | 3. | 1. | 0. | 0. | 0. | 0. | 0. | 4. | 37. | 37. | 13. | 4. | 0. |
| 50000. | 219. | 1. | 2. | 0. | 0. | 0. | 0. | 0. | 3. | 43. | 35. | 12. | 3. | 0. |
| 55000. | 179. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 3. | 40. | 39. | 12. | 4. | 0. |
| 60000. | 164. | 2. | 1. | 1. | 0. | 0. | 1. | 4. | 7. | 29. | 34. | 16. | 6. | 0. |
| 65000. | 154. | 5. | 5. | 3. | 1. | 0. | 0. | 3. | 10. | 23. | 28. | 15. | 8. | 0. |
| 70000. | 146. | 11. | 6. | 8. | 3. | 2. | 2. | 3. | 11. | 13. | 19. | 8. | 12. | 0. |
| 75000. | 139. | 8. | 11. | 15. | 8. | 1. | 4. | 4. | 7. | 9. | 16. | 9. | 8. | 1. |
| 80000. | 122. | 10. | 11. | 20. | 8. | 2. | 1. | 2. | 3. | 14. | 18. | 8. | 3. | 0. |
| 85000. | 115. | 6. | 15. | 23. | 11. | 3. | 0. | 2. | 5. | 13. | 17. | 4. | 3. | 0. |
| 90000. | 102. | 3. | 15. | 23. | 11. | 4. | 1. | 2. | 5. | 13. | 15. | 4. | 6. | 0. |
| 95000. | 96. | 3. | 7. | 26. | 11. | 3. | 2. | 0. | 2. | 21. | 16. | 1. | 7. | 0. |
| 100000. | 74. | 7. | 11. | 23. | 8. | 5. | 0. | 3. | 5. | 20. | 12. | 1. | 4. | 0. |

TABLE III (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973
FEBRUARY

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | WIND DIRECTIONS (DEGREES) | | | | | | | | | | | | >300 <330 | >330 <360 | CALM. |
|----------------------------------|--------------|---------------------------|------------|------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| | | >360 <30 | >30 <60 | >60 <90 | >90 <120 | >120 <150 | >150 <180 | >180 <210 | >210 <240 | >240 <270 | >270 <300 | >300 <330 | >330 <360 | | | |
| 4940. | 394. | 14. | 7. | 2. | 1. | 2. | 4. | 8. | 6. | 3. | 3. | 10. | 17. | 22. | | |
| 5000. | 501. | 15. | 7. | 3. | 1. | 2. | 4. | 9. | 7. | 4. | 2. | 9. | 18. | 21. | | |
| 6000. | 499. | 12. | 5. | 4. | 5. | 1. | 3. | 9. | 11. | 5. | 5. | 16. | 24. | 0. | | |
| 7000. | 499. | 6. | 6. | 1. | 2. | 2. | 6. | 8. | 15. | 10. | 7. | 18. | 20. | 0. | | |
| 8000. | 497. | 4. | 5. | 2. | 1. | 1. | 3. | 8. | 17. | 12. | 11. | 20. | 15. | 0. | | |
| 9000. | 497. | 4. | 5. | 1. | 2. | 1. | 4. | 6. | 13. | 18. | 14. | 20. | 12. | 0. | | |
| 10000. | 498. | 3. | 4. | 1. | 1. | 1. | 3. | 6. | 9. | 20. | 16. | 22. | 12. | 0. | | |
| 11000. | 496. | 3. | 3. | 1. | 1. | 1. | 2. | 4. | 10. | 19. | 21. | 19. | 15. | 0. | | |
| 12000. | 496. | 4. | 3. | 1. | 1. | 1. | 1. | 4. | 9. | 20. | 24. | 18. | 14. | 0. | | |
| 13000. | 496. | 5. | 3. | 1. | 0. | 1. | 0. | 3. | 10. | 21. | 25. | 18. | 13. | 0. | | |
| 14000. | 495. | 5. | 2. | 1. | 0. | 1. | 1. | 1. | 9. | 23. | 26. | 17. | 14. | 0. | | |
| 15000. | 493. | 4. | 2. | 1. | 0. | 0. | 1. | 2. | 9. | 26. | 24. | 18. | 13. | 0. | | |
| 16000. | 494. | 3. | 3. | 0. | 0. | 0. | 1. | 2. | 9. | 25. | 26. | 18. | 13. | 0. | | |
| 18000. | 491. | 4. | 3. | 1. | 0. | 0. | 0. | 2. | 11. | 26. | 24. | 18. | 13. | 0. | | |
| 20000. | 478. | 2. | 3. | 1. | 0. | 0. | 0. | 1. | 10. | 27. | 25. | 19. | 11. | 0. | | |
| 25000. | 436. | 3. | 3. | 0. | 0. | 0. | 0. | 1. | 8. | 32. | 25. | 16. | 11. | 0. | | |
| 30000. | 396. | 3. | 2. | 1. | 1. | 0. | 1. | 2. | 8. | 34. | 26. | 15. | 9. | 0. | | |
| 35000. | 341. | 3. | 1. | 0. | 1. | 0. | 0. | 1. | 10. | 36. | 28. | 15. | 4. | 1. | | |
| 40000. | 309. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 9. | 35. | 37. | 13. | 4. | 0. | | |
| 45000. | 274. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 8. | 38. | 37. | 13. | 3. | 0. | | |
| 50000. | 233. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 5. | 38. | 45. | 8. | 3. | 0. | | |
| 55000. | 191. | 1. | 0. | 0. | 1. | 0. | 0. | 1. | 5. | 38. | 43. | 10. | 2. | 0. | | |
| 60000. | 175. | 2. | 1. | 1. | 0. | 0. | 1. | 2. | 6. | 34. | 33. | 17. | 5. | 0. | | |
| 65000. | 157. | 3. | 4. | 2. | 1. | 1. | 3. | 1. | 4. | 22. | 34. | 17. | 7. | 1. | | |
| 70000. | 131. | 5. | 7. | 11. | 5. | 0. | 2. | 2. | 6. | 15. | 27. | 14. | 7. | 0. | | |
| 75000. | 122. | 7. | 10. | 16. | 4. | 1. | 2. | 2. | 4. | 16. | 26. | 9. | 4. | 0. | | |
| 80000. | 111. | 3. | 12. | 23. | 4. | 2. | 2. | 0. | 5. | 14. | 24. | 8. | 4. | 0. | | |
| 85000. | 107. | 0. | 8. | 22. | 6. | 3. | 2. | 3. | 7. | 21. | 23. | 2. | 3. | 0. | | |
| 90000. | 100. | 4. | 7. | 21. | 5. | 1. | 0. | 2. | 13. | 17. | 26. | 2. | 2. | 0. | | |
| 95000. | 95. | 6. | 3. | 19. | 9. | 0. | 4. | 0. | 12. | 25. | 24. | 3. | 3. | 0. | | |
| 100000. | 73. | 3. | 5. | 23. | 7. | 0. | 0. | 3. | 3. | 32. | 19. | 1. | 4. | 0. | | |

TABLE III (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973

MARCH

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | WIND DIRECTIONS (DEGREES) | | | | | | | | | | CALM, | | |
|----------------------------------|--------------|---------------------------|------------|------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| | | >360 <30 | >30 <60 | >60 <90 | >90 <120 | >120 <150 | >150 <180 | >180 <210 | >210 <240 | >240 <270 | >270 <300 | >300 <330 | >330 <360 | CALM, |
| 4940. | 415. | 12. | 6. | 3. | 1. | 3. | 7. | 17. | 10. | 6. | 5. | 5. | 8. | 16. |
| 5000. | 505. | 10. | 7. | 4. | 1. | 3. | 7. | 17. | 10. | 7. | 4. | 6. | 12. | 14. |
| 6000. | 506. | 7. | 5. | 3. | 4. | 3. | 6. | 17. | 14. | 7. | 8. | 12. | 14. | 0. |
| 7000. | 506. | 4. | 4. | 2. | 1. | 2. | 6. | 17. | 20. | 10. | 10. | 11. | 12. | 0. |
| 8000. | 506. | 3. | 3. | 1. | 1. | 2. | 6. | 14. | 19. | 15. | 10. | 16. | 9. | 0. |
| 9000. | 506. | 2. | 2. | 1. | 1. | 2. | 5. | 11. | 20. | 20. | 11. | 17. | 9. | 0. |
| 10000. | 505. | 1. | 2. | 1. | 1. | 1. | 3. | 9. | 21. | 21. | 16. | 17. | 8. | 0. |
| 11000. | 502. | 2. | 1. | 1. | 1. | 1. | 3. | 6. | 19. | 22. | 23. | 16. | 6. | 0. |
| 12000. | 502. | 3. | 0. | 1. | 1. | 1. | 1. | 5. | 17. | 25. | 25. | 17. | 4. | 0. |
| 13000. | 502. | 2. | 1. | 1. | 1. | 1. | 1. | 4. | 16. | 29. | 26. | 15. | 5. | 0. |
| 14000. | 500. | 2. | 1. | 0. | 0. | 1. | 1. | 3. | 13. | 32. | 27. | 14. | 4. | 0. |
| 15000. | 500. | 2. | 1. | 0. | 0. | 0. | 1. | 3. | 13. | 34. | 26. | 15. | 4. | 0. |
| 16000. | 500. | 2. | 1. | 0. | 1. | 0. | 1. | 4. | 12. | 34. | 29. | 12. | 4. | 0. |
| 18000. | 499. | 2. | 1. | 1. | 0. | 0. | 0. | 3. | 11. | 34. | 31. | 13. | 4. | 0. |
| 20000. | 490. | 1. | 1. | 1. | 0. | 0. | 0. | 2. | 11. | 39. | 28. | 13. | 3. | 0. |
| 25000. | 441. | 1. | 0. | 1. | 0. | 0. | 0. | 2. | 14. | 42. | 26. | 10. | 3. | 0. |
| 30000. | 397. | 1. | 1. | 1. | 0. | 0. | 0. | 2. | 14. | 42. | 26. | 10. | 4. | 0. |
| 35000. | 329. | 2. | 0. | 1. | 0. | 0. | 0. | 1. | 14. | 43. | 28. | 9. | 2. | 1. |
| 40000. | 269. | 0. | 1. | 1. | 0. | 0. | 0. | 0. | 10. | 45. | 30. | 8. | 3. | 2. |
| 45000. | 242. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 7. | 52. | 29. | 8. | 0. | 2. |
| 50000. | 208. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 8. | 55. | 29. | 4. | 1. | 1. |
| 55000. | 173. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 8. | 47. | 39. | 5. | 1. | 0. |
| 60000. | 152. | 0. | 0. | 0. | 1. | 2. | 2. | 5. | 14. | 35. | 33. | 7. | 1. | 0. |
| 65000. | 136. | 1. | 2. | 1. | 2. | 2. | 3. | 7. | 13. | 33. | 24. | 10. | 2. | 0. |
| 70000. | 129. | 3. | 5. | 6. | 7. | 2. | 3. | 3. | 12. | 26. | 18. | 11. | 2. | 1. |
| 75000. | 117. | 3. | 5. | 10. | 13. | 6. | 3. | 3. | 5. | 23. | 16. | 6. | 7. | 0. |
| 80000. | 107. | 5. | 7. | 14. | 7. | 6. | 3. | 4. | 8. | 28. | 10. | 4. | 4. | 0. |
| 85000. | 102. | 3. | 4. | 13. | 14. | 3. | 1. | 5. | 6. | 28. | 16. | 2. | 5. | 1. |
| 90000. | 91. | 1. | 3. | 13. | 9. | 1. | 2. | 0. | 9. | 33. | 25. | 1. | 2. | 0. |
| 95000. | 83. | 0. | 2. | 11. | 10. | 2. | 2. | 0. | 5. | 43. | 18. | 6. | 0. | 0. |
| 100000. | 62. | 0. | 0. | 6. | 18. | 3. | 0. | 0. | 3. | 39. | 26. | 3. | 0. | 2. |

TABLE III (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973

APRIL

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | WIND DIRECTIONS (DEGREES) | | | | | | | | | | | | CALM. |
|----------------------------------|--------------|---------------------------|------------|------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| | | >360 <30 | >30 <60 | >60 <90 | >90 <120 | >120 <150 | >150 <180 | >180 <210 | >210 <240 | >240 <270 | >270 <300 | >300 <330 | >330 <360 | |
| 4940. | 444. | 9. | 12. | 4. | 2. | 1. | 7. | 13. | 12. | 7. | 3. | 3. | 10. | 16. |
| 5000. | 559. | 10. | 9. | 4. | 2. | 2. | 6. | 17. | 12. | 7. | 4. | 4. | 11. | 14. |
| 6000. | 559. | 7. | 4. | 6. | 4. | 3. | 4. | 20. | 14. | 9. | 6. | 8. | 14. | 1. |
| 7000. | 559. | 6. | 3. | 4. | 1. | 3. | 4. | 20. | 20. | 12. | 6. | 8. | 11. | 0. |
| 8000. | 558. | 3. | 3. | 3. | 2. | 1. | 4. | 19. | 23. | 15. | 8. | 10. | 10. | 0. |
| 9000. | 559. | 3. | 2. | 3. | 1. | 2. | 4. | 14. | 25. | 18. | 10. | 11. | 9. | 0. |
| 10000. | 559. | 2. | 3. | 2. | 1. | 1. | 3. | 11. | 25. | 22. | 13. | 12. | 5. | 0. |
| 11000. | 559. | 3. | 2. | 2. | 1. | 2. | 3. | 9. | 23. | 25. | 16. | 11. | 4. | 0. |
| 12000. | 559. | 2. | 1. | 1. | 1. | 2. | 3. | 7. | 19. | 30. | 18. | 11. | 4. | 0. |
| 13000. | 559. | 1. | 1. | 1. | 1. | 2. | 3. | 6. | 20. | 31. | 18. | 11. | 5. | 0. |
| 14000. | 560. | 2. | 1. | 0. | 0. | 1. | 3. | 7. | 20. | 33. | 19. | 10. | 4. | 0. |
| 15000. | 560. | 1. | 1. | 0. | 0. | 1. | 2. | 5. | 19. | 37. | 18. | 10. | 5. | 0. |
| 16000. | 559. | 2. | 1. | 0. | 1. | 0. | 2. | 5. | 15. | 39. | 21. | 9. | 5. | 0. |
| 18000. | 552. | 2. | 0. | 0. | 0. | 0. | 2. | 5. | 15. | 41. | 19. | 9. | 7. | 0. |
| 20000. | 526. | 2. | 0. | 0. | 0. | 1. | 2. | 4. | 16. | 43. | 16. | 10. | 6. | 1. |
| 25000. | 482. | 1. | 1. | 0. | 0. | 1. | 1. | 4. | 17. | 44. | 17. | 8. | 6. | 0. |
| 30000. | 453. | 2. | 1. | 1. | 0. | 0. | 1. | 4. | 16. | 46. | 17. | 8. | 4. | 2. |
| 35000. | 353. | 1. | 0. | 0. | 0. | 0. | 0. | 3. | 14. | 46. | 19. | 8. | 4. | 2. |
| 40000. | 290. | 0. | 0. | 0. | 0. | 0. | 0. | 3. | 16. | 51. | 19. | 4. | 3. | 3. |
| 45000. | 255. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 18. | 51. | 24. | 5. | 0. | 0. |
| 50000. | 230. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 18. | 50. | 27. | 3. | 0. | 0. |
| 55000. | 192. | 0. | 0. | 0. | 0. | 0. | 1. | 3. | 20. | 49. | 23. | 4. | 0. | 0. |
| 60000. | 173. | 1. | 2. | 1. | 0. | 0. | 2. | 6. | 21. | 40. | 23. | 3. | 1. | 1. |
| 65000. | 162. | 1. | 2. | 4. | 6. | 4. | 6. | 6. | 19. | 25. | 14. | 10. | 2. | 2. |
| 70000. | 147. | 3. | 8. | 14. | 12. | 8. | 8. | 9. | 6. | 11. | 11. | 8. | 3. | 0. |
| 75000. | 140. | 5. | 6. | 14. | 11. | 5. | 9. | 7. | 7. | 19. | 11. | 4. | 2. | 0. |
| 80000. | 125. | 4. | 5. | 10. | 16. | 6. | 7. | 7. | 11. | 15. | 9. | 7. | 2. | 0. |
| 85000. | 116. | 4. | 4. | 7. | 11. | 3. | 3. | 8. | 15. | 21. | 13. | 7. | 3. | 2. |
| 90000. | 110. | 3. | 2. | 3. | 6. | 5. | 4. | 5. | 12. | 35. | 15. | 8. | 1. | 1. |
| 95000. | 98. | 3. | 1. | 6. | 1. | 0. | 1. | 5. | 11. | 41. | 18. | 4. | 4. | 4. |
| 100000. | 73. | 1. | 0. | 0. | 0. | 3. | 0. | 0. | 14. | 34. | 37. | 7. | 1. | 3. |

TABLE III (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973
MAY

| GEOMETRIC ALTITUDE M'SL FT. | TOTAL OBS | WIND DIRECTIONS (DEGREES) | | | | | | | | | | | | CALM. | |
|-----------------------------------|--------------|---------------------------|------------|------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|------|
| | | >360 <30 | >30 <60 | >60 <90 | >90 <120 | >120 <150 | >150 <180 | >180 <210 | >210 <240 | >240 <270 | >270 <300 | >300 <330 | >330 <360 | >330 | >360 |
| 4940. | 443. | 12. | 5. | 5. | 2. | 3. | 6. | 18. | 12. | 7. | 2. | 4. | 6. | 17. | |
| 5000. | 488. | 11. | 3. | 5. | 2. | 2. | 7. | 18. | 13. | 7. | 1. | 4. | 11. | 15. | |
| 6000. | 488. | 6. | 4. | 6. | 3. | 4. | 6. | 19. | 16. | 6. | 5. | 10. | 15. | 0. | |
| 7000. | 488. | 3. | 3. | 3. | 2. | 4. | 7. | 24. | 18. | 8. | 6. | 9. | 12. | 0. | |
| 8000. | 488. | 2. | 3. | 2. | 2. | 2. | 7. | 22. | 24. | 9. | 6. | 10. | 11. | 0. | |
| 9000. | 490. | 2. | 3. | 2. | 1. | 2. | 6. | 20. | 26. | 11. | 10. | 9. | 7. | 0. | |
| 10000. | 491. | 2. | 3. | 1. | 1. | 2. | 5. | 17. | 27. | 16. | 10. | 9. | 7. | 0. | |
| 11000. | 488. | 3. | 2. | 1. | 1. | 1. | 5. | 14. | 27. | 21. | 10. | 11. | 4. | 0. | |
| 12000. | 487. | 4. | 1. | 1. | 1. | 2. | 4. | 12. | 29. | 20. | 14. | 10. | 3. | 0. | |
| 13000. | 485. | 3. | 0. | 1. | 2. | 1. | 3. | 12. | 27. | 25. | 15. | 7. | 3. | 0. | |
| 14000. | 483. | 3. | 2. | 1. | 2. | 1. | 2. | 11. | 27. | 27. | 15. | 6. | 4. | 0. | |
| 15000. | 479. | 4. | 2. | 1. | 1. | 1. | 2. | 9. | 27. | 29. | 17. | 5. | 3. | 0. | |
| 16000. | 478. | 3. | 2. | 2. | 2. | 1. | 1. | 9. | 24. | 32. | 17. | 5. | 3. | 0. | |
| 18000. | 474. | 3. | 2. | 1. | 1. | 0. | 1. | 6. | 24. | 35. | 17. | 5. | 4. | 0. | |
| 20000. | 464. | 3. | 1. | 1. | 0. | 1. | 1. | 3. | 23. | 37. | 18. | 7. | 4. | 0. | |
| 25000. | 449. | 2. | 1. | 0. | 0. | 0. | 1. | 3. | 18. | 43. | 19. | 7. | 4. | 0. | |
| 30000. | 416. | 2. | 0. | 1. | 0. | 1. | 1. | 2. | 18. | 42. | 21. | 7. | 4. | 2. | |
| 35000. | 333. | 1. | 1. | 1. | 0. | 1. | 1. | 3. | 15. | 48. | 18. | 7. | 3. | 2. | |
| 40000. | 285. | 1. | 0. | 1. | 0. | 0. | 0. | 1. | 12. | 54. | 19. | 7. | 2. | 2. | |
| 45000. | 269. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 11. | 58. | 22. | 6. | 1. | 1. | |
| 50000. | 232. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 13. | 56. | 23. | 6. | 1. | 0. | |
| 55000. | 188. | 0. | 1. | 0. | 0. | 0. | 2. | 3. | 16. | 44. | 25. | 6. | 4. | 0. | |
| 60000. | 174. | 2. | 1. | 3. | 3. | 4. | 4. | 10. | 13. | 26. | 18. | 7. | 7. | 1. | |
| 65000. | 154. | 6. | 7. | 14. | 8. | 10. | 4. | 5. | 14. | 12. | 6. | 9. | 5. | 0. | |
| 70000. | 142. | 8. | 12. | 18. | 18. | 6. | 11. | 2. | 6. | 4. | 4. | 5. | 4. | 1. | |
| 75000. | 133. | 5. | 12. | 23. | 23. | 11. | 6. | 2. | 4. | 3. | 1. | 6. | 4. | 0. | |
| 80000. | 127. | 2. | 7. | 31. | 22. | 8. | 6. | 5. | 5. | 6. | 2. | 4. | 2. | 0. | |
| 85000. | 121. | 5. | 8. | 27. | 22. | 7. | 3. | 9. | 5. | 7. | 2. | 2. | 1. | 1. | |
| 90000. | 115. | 3. | 7. | 23. | 16. | 5. | 6. | 8. | 11. | 10. | 8. | 3. | 1. | 0. | |
| 95000. | 99. | 2. | 8. | 16. | 20. | 6. | 5. | 1. | 11. | 18. | 7. | 0. | 3. | 2. | |
| 100000. | 76. | 5. | 5. | 13. | 16. | 5. | 9. | 1. | 19. | 16. | 8. | 4. | 5. | 3. | |

TABLE III (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973

JUNE

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | WIND DIRECTIONS (DEGREES) | | | | | | | | | | CALM. | |
|----------------------------------|--------------|---------------------------|------------|------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | >360 <30 | >30 <60 | >60 <90 | >90 <120 | >120 <150 | >150 <180 | >180 <210 | >210 <240 | >240 <270 | >270 <300 | >300 <330 | >330 <360 |
| 4940. | 343. | 9. | 8. | 2. | 3. | 8. | 20. | 15. | 7. | 2. | 3. | 5. | 15. |
| 5000. | 369. | 8. | 6. | 2. | 4. | 8. | 20. | 15. | 6. | 2. | 4. | 7. | 15. |
| 6000. | 370. | 8. | 4. | 5. | 6. | 6. | 25. | 14. | 7. | 8. | 6. | 8. | 0. |
| 7000. | 369. | 6. | 2. | 4. | 4. | 8. | 26. | 19. | 8. | 6. | 5. | 7. | 0. |
| 8000. | 370. | 4. | 3. | 2. | 2. | 9. | 26. | 24. | 8. | 5. | 5. | 8. | 0. |
| 9000. | 370. | 5. | 3. | 2. | 2. | 8. | 22. | 27. | 10. | 4. | 6. | 7. | 0. |
| 10000. | 373. | 6. | 3. | 2. | 2. | 5. | 21. | 27. | 13. | 5. | 9. | 5. | 0. |
| 11000. | 373. | 4. | 3. | 2. | 3. | 5. | 15. | 24. | 21. | 6. | 7. | 8. | 0. |
| 12000. | 375. | 3. | 4. | 4. | 2. | 4. | 12. | 26. | 19. | 10. | 7. | 7. | 0. |
| 13000. | 373. | 5. | 5. | 4. | 1. | 3. | 11. | 26. | 21. | 9. | 8. | 5. | 0. |
| 14000. | 373. | 5. | 4. | 3. | 3. | 3. | 11. | 27. | 21. | 8. | 8. | 6. | 0. |
| 15000. | 371. | 6. | 5. | 3. | 2. | 3. | 11. | 26. | 23. | 8. | 7. | 4. | 1. |
| 16000. | 370. | 4. | 5. | 5. | 2. | 2. | 12. | 27. | 22. | 8. | 7. | 5. | 1. |
| 18000. | 367. | 2. | 6. | 5. | 2. | 2. | 10. | 26. | 23. | 11. | 5. | 6. | 0. |
| 20000. | 360. | 2. | 6. | 3. | 2. | 2. | 10. | 23. | 28. | 9. | 6. | 6. | 0. |
| 25000. | 333. | 5. | 4. | 1. | 0. | 2. | 7. | 25. | 27. | 14. | 7. | 6. | 0. |
| 30000. | 309. | 7. | 3. | 1. | 1. | 2. | 6. | 21. | 31. | 16. | 7. | 5. | 1. |
| 35000. | 257. | 5. | 1. | 1. | 0. | 2. | 7. | 16. | 38. | 14. | 7. | 7. | 2. |
| 40000. | 220. | 4. | 1. | 0. | 0. | 0. | 6. | 15. | 39. | 16. | 6. | 10. | 1. |
| 45000. | 203. | 3. | 0. | 0. | 0. | 0. | 3. | 17. | 41. | 17. | 9. | 8. | 0. |
| 50000. | 191. | 3. | 2. | 0. | 2. | 2. | 4. | 20. | 35. | 19. | 9. | 4. | 1. |
| 55000. | 171. | 5. | 5. | 0. | 0. | 4. | 11. | 19. | 28. | 13. | 7. | 4. | 0. |
| 60000. | 158. | 3. | 9. | 9. | 17. | 13. | 11. | 7. | 4. | 1. | 4. | 3. | 1. |
| 65000. | 139. | 1. | 8. | 29. | 33. | 4. | 1. | 0. | 1. | 1. | 1. | 0. | 0. |
| 70000. | 133. | 0. | 2. | 38. | 48. | 2. | 0. | 0. | 1. | 0. | 0. | 0. | 0. |
| 75000. | 128. | 0. | 1. | 39. | 54. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 1. |
| 80000. | 124. | 0. | 2. | 35. | 57. | 0. | 0. | 0. | 1. | 0. | 0. | 1. | 0. |
| 85000. | 118. | 0. | 1. | 42. | 55. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 112. | 1. | 1. | 38. | 54. | 0. | 1. | 1. | 0. | 0. | 0. | 0. | 0. |
| 95000. | 100. | 0. | 1. | 37. | 54. | 0. | 0. | 1. | 0. | 0. | 0. | 0. | 0. |
| 100000. | 85. | 1. | 2. | 27. | 61. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 1. |

TABLE III (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973

JULY

| GEOMETRIC ALTITUDE MSL FT, | TOTAL OBS | WIND DIRECTIONS (DEGREES) | | | | | | | | | | | | >300 <330 | >330 <360 | CALM, |
|----------------------------------|--------------|---------------------------|------------|------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| | | >360 <30 | >30 <60 | >60 <90 | >90 <120 | >120 <150 | >150 <180 | >180 <210 | >210 <240 | >240 <270 | >270 <300 | >300 <330 | >330 <360 | | | |
| 4940. | 363. | 12. | 10. | 6. | 4. | 4. | 7. | 14. | 6. | 3. | 2. | 2. | 4. | 25. | | |
| 5000. | 386. | 10. | 11. | 5. | 3. | 6. | 9. | 13. | 6. | 3. | 2. | 3. | 8. | 22. | | |
| 6000. | 386. | 7. | 7. | 11. | 10. | 7. | 9. | 15. | 8. | 5. | 5. | 5. | 10. | 2. | | |
| 7000. | 386. | 6. | 5. | 4. | 5. | 9. | 12. | 18. | 16. | 8. | 4. | 5. | 6. | 1. | | |
| 8000. | 386. | 7. | 4. | 4. | 5. | 7. | 13. | 17. | 16. | 10. | 8. | 6. | 4. | 0. | | |
| 9000. | 388. | 6. | 5. | 3. | 6. | 9. | 10. | 11. | 16. | 11. | 6. | 9. | 6. | 0. | | |
| 10000. | 389. | 7. | 4. | 8. | 6. | 4. | 10. | 12. | 12. | 11. | 7. | 11. | 7. | 1. | | |
| 11000. | 391. | 4. | 8. | 8. | 7. | 6. | 11. | 9. | 9. | 8. | 9. | 11. | 9. | 0. | | |
| 12000. | 392. | 7. | 7. | 10. | 9. | 8. | 7. | 8. | 9. | 7. | 9. | 10. | 9. | 0. | | |
| 13000. | 392. | 8. | 6. | 10. | 12. | 7. | 6. | 10. | 8. | 4. | 7. | 11. | 11. | 0. | | |
| 14000. | 392. | 9. | 6. | 14. | 11. | 8. | 6. | 7. | 9. | 4. | 5. | 9. | 10. | 0. | | |
| 15000. | 391. | 9. | 7. | 14. | 11. | 10. | 5. | 8. | 9. | 5. | 4. | 7. | 10. | 0. | | |
| 16000. | 390. | 10. | 6. | 15. | 9. | 10. | 7. | 9. | 8. | 4. | 5. | 6. | 11. | 0. | | |
| 18000. | 388. | 7. | 8. | 15. | 10. | 6. | 9. | 7. | 10. | 4. | 5. | 10. | 9. | 0. | | |
| 20000. | 383. | 7. | 5. | 14. | 9. | 7. | 7. | 8. | 11. | 5. | 8. | 10. | 7. | 0. | | |
| 25000. | 353. | 6. | 8. | 8. | 7. | 4. | 10. | 9. | 11. | 13. | 8. | 7. | 7. | 0. | | |
| 30000. | 335. | 6. | 7. | 9. | 8. | 7. | 6. | 13. | 8. | 13. | 12. | 7. | 6. | 0. | | |
| 35000. | 294. | 5. | 9. | 5. | 9. | 4. | 4. | 12. | 8. | 12. | 15. | 8. | 7. | 1. | | |
| 40000. | 244. | 5. | 8. | 3. | 7. | 5. | 8. | 7. | 9. | 11. | 15. | 13. | 11. | 0. | | |
| 45000. | 218. | 6. | 9. | 6. | 6. | 4. | 6. | 12. | 9. | 8. | 12. | 11. | 12. | 0. | | |
| 50000. | 205. | 8. | 9. | 10. | 11. | 8. | 8. | 9. | 8. | 6. | 9. | 6. | 6. | 1. | | |
| 55000. | 174. | 7. | 9. | 15. | 24. | 14. | 13. | 6. | 5. | 2. | 2. | 3. | 1. | 0. | | |
| 60000. | 165. | 1. | 5. | 30. | 44. | 13. | 2. | 1. | 1. | 0. | 1. | 1. | 0. | 0. | | |
| 65000. | 153. | 0. | 1. | 36. | 59. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 70000. | 147. | 0. | 1. | 32. | 63. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 75000. | 141. | 0. | 0. | 36. | 61. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 80000. | 138. | 0. | 0. | 36. | 62. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 85000. | 129. | 0. | 0. | 43. | 57. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 90000. | 122. | 0. | 0. | 40. | 60. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 95000. | 116. | 0. | 0. | 36. | 64. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 100000. | 105. | 0. | 0. | 30. | 70. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | | |

TABLE III (CONT)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 STATION SITE
 PERIOD OF RECORD 1961-1973
 AUGUST

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | WIND DIRECTIONS (DEGREES) | | | | | | | | | | | | >330 -<360 | CALM, |
|----------------------------------|--------------|---------------------------|-------------|-------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------|
| | | >360 -<30 | >30 -<60 | >60 -<90 | >90 -<120 | >120 -<150 | >150 -<180 | >180 -<210 | >210 -<240 | >240 -<270 | >270 -<300 | >300 -<330 | >330 -<360 | | |
| 4940. | 384. | 15. | 10. | 4. | 4. | 4. | 5. | 11. | 7. | 4. | 2. | 2. | 9. | 22. | |
| 5000. | 407. | 10. | 9. | 5. | 4. | 4. | 6. | 13. | 6. | 3. | 1. | 3. | 13. | 22. | |
| 6000. | 407. | 8. | 8. | 10. | 8. | 6. | 6. | 15. | 7. | 4. | 7. | 6. | 14. | 1. | |
| 7000. | 408. | 4. | 5. | 6. | 7. | 5. | 11. | 19. | 14. | 7. | 5. | 7. | 10. | 1. | |
| 8000. | 408. | 5. | 5. | 5. | 7. | 4. | 10. | 18. | 16. | 8. | 8. | 8. | 6. | 1. | |
| 9000. | 410. | 6. | 4. | 8. | 6. | 5. | 8. | 17. | 13. | 8. | 9. | 11. | 6. | 0. | |
| 10000. | 410. | 9. | 4. | 8. | 7. | 5. | 8. | 10. | 13. | 8. | 10. | 10. | 7. | 0. | |
| 11000. | 411. | 8. | 5. | 10. | 6. | 7. | 7. | 9. | 11. | 9. | 8. | 11. | 8. | 0. | |
| 12000. | 411. | 8. | 7. | 10. | 8. | 8. | 7. | 9. | 10. | 9. | 9. | 9. | 9. | 0. | |
| 13000. | 412. | 9. | 7. | 11. | 9. | 9. | 6. | 8. | 8. | 8. | 8. | 9. | 7. | 0. | |
| 14000. | 411. | 9. | 8. | 14. | 10. | 8. | 5. | 7. | 10. | 8. | 8. | 8. | 5. | 0. | |
| 15000. | 411. | 7. | 9. | 13. | 10. | 9. | 7. | 7. | 10. | 8. | 9. | 5. | 6. | 0. | |
| 16000. | 410. | 8. | 10. | 12. | 10. | 8. | 8. | 7. | 11. | 8. | 9. | 4. | 5. | 0. | |
| 18000. | 406. | 7. | 9. | 10. | 8. | 9. | 8. | 8. | 13. | 8. | 8. | 5. | 6. | 0. | |
| 20000. | 404. | 8. | 9. | 10. | 4. | 8. | 7. | 10. | 12. | 11. | 7. | 8. | 5. | 0. | |
| 25000. | 385. | 6. | 1. | 5. | 6. | 6. | 7. | 11. | 13. | 12. | 6. | 7. | 9. | 0. | |
| 30000. | 369. | 7. | 7. | 3. | 7. | 5. | 5. | 10. | 13. | 15. | 7. | 10. | 10. | 0. | |
| 35000. | 330. | 8. | 5. | 4. | 6. | 5. | 4. | 6. | 15. | 15. | 9. | 11. | 11. | 0. | |
| 40000. | 296. | 8. | 5. | 4. | 5. | 5. | 4. | 6. | 8. | 22. | 8. | 10. | 14. | 0. | |
| 45000. | 260. | 11. | 8. | 4. | 5. | 4. | 5. | 6. | 8. | 15. | 15. | 8. | 11. | 0. | |
| 50000. | 238. | 10. | 9. | 5. | 6. | 5. | 7. | 6. | 13. | 12. | 6. | 9. | 11. | 0. | |
| 55000. | 212. | 7. | 11. | 13. | 19. | 11. | 8. | 13. | 16. | 5. | 3. | 5. | 5. | 0. | |
| 60000. | 198. | 3. | 8. | 31. | 32. | 12. | 8. | 6. | 2. | 0. | 0. | 1. | 1. | 1. | |
| 65000. | 189. | 1. | 1. | 38. | 52. | 7. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | |
| 70000. | 176. | 0. | 0. | 34. | 64. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | |
| 75000. | 164. | 0. | 0. | 42. | 57. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 80000. | 158. | 0. | 0. | 36. | 63. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 85000. | 154. | 0. | 0. | 44. | 56. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 90000. | 137. | 0. | 0. | 48. | 52. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 95000. | 123. | 0. | 0. | 38. | 59. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | |
| 100000. | 106. | 0. | 1. | 29. | 69. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |

TABLE III (CONT)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 STATION SITE
 PERIOD OF RECORD 1961-1973

SEPTEMBER

| GEOMETRIC ALTITUDE MSL FT. | TO. AL OBS | WIND DIRECTIONS (DEGREES) | | | | | | | | | | >270 <300 | >300 <330 | >330 <360 | CALM |
|----------------------------------|---------------|---------------------------|------------|------------|-------------|--------------|--------------|--------------|--------------|--------------|-----|--------------|--------------|--------------|------|
| | | >360 <30 | >30 <60 | >60 <90 | >90 <120 | >120 <150 | >150 <180 | >180 <210 | >210 <240 | >240 <270 | | | | | |
| 4940. | 324. | 11. | 10. | 5. | 4. | 3. | 5. | 10. | 10. | 4. | 3. | 3. | 3. | 7. | 24. |
| 5000. | 366. | 10. | 8. | 4. | 3. | 2. | 5. | 12. | 10. | 5. | 4. | 3. | 4. | 11. | 21. |
| 6000. | 365. | 8. | 7. | 6. | 7. | 5. | 5. | 14. | 10. | 3. | 10. | 9. | 10. | 13. | 1. |
| 7000. | 366. | 5. | 5. | 6. | 3. | 2. | 9. | 15. | 21. | 7. | 7. | 8. | 7. | 11. | 1. |
| 8000. | 366. | 5. | 5. | 5. | 3. | 3. | 5. | 20. | 20. | 10. | 7. | 7. | 9. | 9. | 0. |
| 9000. | 367. | 4. | 5. | 4. | 4. | 2. | 6. | 16. | 22. | 10. | 10. | 10. | 9. | 8. | 0. |
| 10000. | 366. | 3. | 5. | 4. | 3. | 4. | 6. | 12. | 22. | 13. | 12. | 12. | 10. | 6. | 0. |
| 11000. | 365. | 4. | 5. | 3. | 2. | 6. | 6. | 9. | 17. | 20. | 13. | 13. | 10. | 5. | 0. |
| 12000. | 365. | 3. | 5. | 2. | 4. | 5. | 6. | 8. | 14. | 22. | 15. | 15. | 10. | 5. | 0. |
| 13000. | 365. | 4. | 5. | 2. | 4. | 6. | 4. | 8. | 16. | 22. | 16. | 16. | 8. | 5. | 0. |
| 14000. | 365. | 5. | 4. | 3. | 3. | 5. | 4. | 7. | 16. | 21. | 16. | 16. | 8. | 6. | 0. |
| 15000. | 364. | 4. | 3. | 4. | 2. | 5. | 5. | 7. | 15. | 22. | 16. | 16. | 8. | 8. | 0. |
| 16000. | 364. | 4. | 4. | 1. | 4. | 5. | 5. | 6. | 16. | 21. | 16. | 16. | 10. | 7. | 0. |
| 18000. | 362. | 4. | 3. | 1. | 2. | 5. | 6. | 5. | 17. | 24. | 17. | 17. | 10. | 6. | 0. |
| 20000. | 360. | 5. | 2. | 1. | 0. | 2. | 4. | 10. | 17. | 24. | 17. | 17. | 12. | 4. | 0. |
| 25000. | 346. | 4. | 2. | 0. | 1. | 2. | 3. | 6. | 21. | 27. | 15. | 15. | 13. | 7. | 0. |
| 30000. | 326. | 3. | 2. | 0. | 1. | 1. | 2. | 9. | 19. | 28. | 21. | 21. | 10. | 5. | 1. |
| 35000. | 278. | 3. | 1. | 1. | 0. | 0. | 0. | 5. | 17. | 35. | 26. | 26. | 7. | 4. | 0. |
| 40000. | 254. | 0. | 1. | 0. | 0. | 0. | 0. | 2. | 16. | 40. | 31. | 31. | 5. | 3. | 0. |
| 45000. | 233. | 0. | 0. | 0. | 0. | 1. | 0. | 4. | 14. | 41. | 33. | 33. | 5. | 1. | 0. |
| 50000. | 220. | 1. | 1. | 0. | 0. | 0. | 0. | 5. | 12. | 40. | 35. | 35. | 5. | 1. | 0. |
| 55000. | 197. | 2. | 3. | 1. | 2. | 2. | 1. | 12. | 18. | 24. | 29. | 29. | 4. | 5. | 1. |
| 60000. | 185. | 4. | 8. | 9. | 9. | 7. | 9. | 4. | 11. | 15. | 11. | 11. | 5. | 8. | 1. |
| 65000. | 175. | 4. | 7. | 17. | 26. | 13. | 5. | 5. | 8. | 3. | 6. | 6. | 3. | 3. | 0. |
| 70000. | 164. | 3. | 7. | 34. | 25. | 12. | 4. | 4. | 2. | 2. | 1. | 1. | 2. | 4. | 0. |
| 75000. | 158. | 3. | 3. | 37. | 35. | 10. | 4. | 1. | 2. | 2. | 1. | 1. | 1. | 1. | 0. |
| 80000. | 152. | 1. | 5. | 39. | 40. | 9. | 4. | 1. | 0. | 0. | 0. | 0. | 1. | 1. | 0. |
| 85000. | 144. | 2. | 4. | 35. | 40. | 8. | 3. | 2. | 1. | 1. | 1. | 1. | 1. | 0. | 1. |
| 90000. | 132. | 0. | 5. | 39. | 40. | 7. | 3. | 2. | 1. | 1. | 0. | 0. | 2. | 0. | 1. |
| 95000. | 116. | 2. | 6. | 35. | 37. | 5. | 3. | 4. | 2. | 2. | 1. | 1. | 0. | 1. | 1. |
| 100000. | 103. | 1. | 2. | 34. | 41. | 9. | 3. | 2. | 4. | 0. | 1. | 1. | 0. | 3. | 1. |

TABLE III (CONT.)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973

OCTOBER

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | WIND DIRECTIONS (DEGREES) | | | | | | | | | | | | CALM. |
|----------------------------------|--------------|---------------------------|------------|------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| | | >360 <30 | >30 <60 | >60 <90 | >90 <120 | >120 <150 | >150 <180 | >180 <210 | >210 <240 | >240 <270 | >270 <300 | >300 <330 | >330 <360 | |
| 4940. | 367. | 14. | 10. | 5. | 2. | 3. | 5. | 14. | 7. | 3. | 2. | 1. | 6. | 26. |
| 5000. | 415. | 14. | 8. | 6. | 2. | 3. | 6. | 14. | 7. | 3. | 1. | 1. | 11. | 23. |
| 6000. | 415. | 4. | 6. | 10. | 7. | 4. | 8. | 16. | 9. | 4. | 6. | 8. | 18. | 0. |
| 7000. | 416. | 3. | 3. | 4. | 3. | 5. | 7. | 20. | 17. | 9. | 6. | 9. | 14. | 0. |
| 8000. | 416. | 3. | 3. | 3. | 2. | 3. | 6. | 14. | 24. | 11. | 10. | 11. | 9. | 0. |
| 9000. | 416. | 2. | 4. | 3. | 1. | 3. | 6. | 13. | 19. | 16. | 12. | 12. | 10. | 0. |
| 10000. | 417. | 3. | 4. | 3. | 2. | 1. | 4. | 12. | 20. | 16. | 13. | 14. | 8. | 0. |
| 11000. | 417. | 4. | 3. | 2. | 2. | 1. | 3. | 9. | 20. | 19. | 14. | 14. | 8. | 0. |
| 12000. | 417. | 3. | 4. | 2. | 1. | 2. | 3. | 7. | 18. | 20. | 15. | 15. | 8. | 0. |
| 13000. | 418. | 3. | 4. | 3. | 1. | 2. | 3. | 7. | 17. | 20. | 17. | 13. | 10. | 0. |
| 14000. | 418. | 4. | 3. | 3. | 1. | 2. | 2. | 7. | 18. | 20. | 15. | 11. | 14. | 0. |
| 15000. | 416. | 4. | 3. | 2. | 1. | 1. | 2. | 6. | 17. | 19. | 17. | 11. | 15. | 0. |
| 16000. | 416. | 4. | 3. | 3. | 2. | 1. | 1. | 7. | 14. | 23. | 16. | 10. | 15. | 0. |
| 18000. | 415. | 9. | 3. | 2. | 1. | 1. | 2. | 5. | 17. | 22. | 17. | 9. | 13. | 0. |
| 20000. | 411. | 8. | 2. | 2. | 2. | 1. | 1. | 6. | 15. | 24. | 19. | 7. | 11. | 0. |
| 25000. | 389. | 7. | 5. | 2. | 0. | 2. | 1. | 8. | 16. | 21. | 20. | 10. | 7. | 1. |
| 30000. | 364. | 7. | 4. | 2. | 1. | 2. | 1. | 4. | 19. | 24. | 17. | 12. | 6. | 2. |
| 35000. | 316. | 7. | 5. | 1. | 1. | 1. | 1. | 2. | 15. | 33. | 21. | 9. | 3. | 3. |
| 40000. | 289. | 6. | 1. | 2. | 0. | 1. | 1. | 0. | 11. | 36. | 23. | 11. | 4. | 3. |
| 45000. | 256. | 5. | 0. | 0. | 0. | 0. | 1. | 0. | 9. | 41. | 32. | 7. | 5. | 0. |
| 50000. | 248. | 3. | 1. | 0. | 0. | 0. | 0. | 1. | 9. | 40. | 29. | 12. | 4. | 2. |
| 55000. | 221. | 3. | 0. | 0. | 0. | 0. | 0. | 2. | 11. | 31. | 28. | 17. | 7. | 1. |
| 60000. | 213. | 8. | 1. | 3. | 2. | 3. | 5. | 6. | 15. | 13. | 15. | 17. | 10. | 0. |
| 65000. | 202. | 6. | 6. | 3. | 5. | 4. | 5. | 9. | 10. | 16. | 11. | 9. | 14. | 0. |
| 70000. | 196. | 7. | 7. | 9. | 6. | 10. | 3. | 5. | 9. | 12. | 13. | 12. | 7. | 1. |
| 75000. | 186. | 5. | 4. | 16. | 11. | 6. | 2. | 6. | 8. | 16. | 13. | 8. | 4. | 1. |
| 80000. | 175. | 5. | 6. | 13. | 11. | 9. | 1. | 2. | 6. | 22. | 14. | 5. | 6. | 1. |
| 85000. | 165. | 4. | 8. | 10. | 10. | 6. | 2. | 4. | 7. | 15. | 22. | 8. | 4. | 1. |
| 90000. | 152. | 4. | 4. | 5. | 7. | 4. | 5. | 4. | 3. | 26. | 25. | 7. | 5. | 1. |
| 95000. | 134. | 4. | 3. | 8. | 7. | 2. | 3. | 1. | 5. | 22. | 33. | 5. | 4. | 3. |
| 100000. | 114. | 5. | 2. | 4. | 5. | 5. | 2. | 6. | 4. | 29. | 29. | 4. | 2. | 4. |

TABLE III (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973

NOVEMBER

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | WIND DIRECTIONS (DEGREES) | | | | | | | | | | CALM | | |
|----------------------------------|--------------|---------------------------|------------|------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| | | >360 <30 | >30 <60 | >60 <90 | >90 <120 | >120 <150 | >150 <180 | >180 <210 | >210 <240 | >240 <270 | >270 <300 | >300 <330 | >330 <360 | CALM |
| 4940. | 348. | 14. | 10. | 4. | 1. | 1. | 5. | 11. | 8. | 4. | 2. | 3. | 12. | 24. |
| 5000. | 406. | 16. | 8. | 4. | 0. | 1. | 4. | 10. | 10. | 4. | 2. | 4. | 16. | 21. |
| 6000. | 405. | 11. | 4. | 6. | 5. | 1. | 2. | 10. | 13. | 6. | 7. | 11. | 22. | 0. |
| 7000. | 405. | 8. | 5. | 3. | 1. | 2. | 4. | 14. | 17. | 11. | 5. | 13. | 17. | 0. |
| 8000. | 406. | 6. | 4. | 2. | 1. | 0. | 4. | 11. | 16. | 14. | 9. | 17. | 15. | 0. |
| 9000. | 407. | 5. | 3. | 1. | 1. | 1. | 1. | 10. | 17. | 17. | 9. | 19. | 14. | 0. |
| 10000. | 407. | 6. | 2. | 2. | 1. | 1. | 1. | 7. | 16. | 17. | 13. | 20. | 14. | 0. |
| 11000. | 408. | 7. | 2. | 1. | 0. | 1. | 2. | 5. | 15. | 21. | 14. | 19. | 12. | 0. |
| 12000. | 405. | 7. | 2. | 1. | 1. | 1. | 1. | 5. | 13. | 21. | 17. | 19. | 12. | 0. |
| 13000. | 404. | 5. | 2. | 0. | 1. | 1. | 1. | 4. | 13. | 23. | 21. | 17. | 12. | 0. |
| 14000. | 404. | 6. | 1. | 0. | 1. | 1. | 0. | 3. | 14. | 24. | 20. | 18. | 11. | 0. |
| 15000. | 403. | 7. | 1. | 1. | 1. | 1. | 0. | 2. | 15. | 26. | 21. | 14. | 11. | 0. |
| 16000. | 403. | 7. | 1. | 1. | 2. | 0. | 0. | 2. | 15. | 27. | 20. | 13. | 11. | 0. |
| 18000. | 402. | 6. | 0. | 1. | 1. | 1. | 0. | 2. | 15. | 28. | 19. | 14. | 12. | 0. |
| 20000. | 391. | 7. | 1. | 1. | 1. | 0. | 0. | 2. | 16. | 27. | 19. | 16. | 9. | 0. |
| 25000. | 345. | 7. | 0. | 1. | 1. | 0. | 0. | 2. | 13. | 28. | 22. | 16. | 10. | 0. |
| 30000. | 322. | 6. | 0. | 1. | 1. | 0. | 0. | 3. | 11. | 28. | 26. | 15. | 9. | 1. |
| 35000. | 293. | 4. | 0. | 0. | 0. | 0. | 0. | 3. | 9. | 29. | 28. | 10. | 9. | 8. |
| 40000. | 233. | 3. | 0. | 1. | 0. | 0. | 0. | 2. | 9. | 34. | 27. | 15. | 6. | 2. |
| 45000. | 211. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 9. | 38. | 34. | 12. | 2. | 0. |
| 50000. | 193. | 2. | 0. | 0. | 0. | 0. | 0. | 1. | 10. | 41. | 30. | 11. | 5. | 1. |
| 55000. | 164. | 1. | 0. | 0. | 0. | 1. | 1. | 1. | 10. | 41. | 30. | 11. | 2. | 1. |
| 60000. | 152. | 2. | 0. | 1. | 1. | 0. | 1. | 5. | 9. | 32. | 30. | 12. | 6. | 0. |
| 65000. | 148. | 5. | 3. | 2. | 3. | 2. | 1. | 1. | 11. | 26. | 30. | 9. | 5. | 1. |
| 70000. | 143. | 6. | 5. | 7. | 3. | 1. | 1. | 2. | 11. | 20. | 29. | 13. | 3. | 0. |
| 75000. | 134. | 9. | 7. | 6. | 1. | 1. | 0. | 2. | 7. | 22. | 28. | 10. | 7. | 0. |
| 80000. | 130. | 4. | 8. | 4. | 3. | 0. | 1. | 0. | 4. | 32. | 25. | 12. | 7. | 2. |
| 85000. | 122. | 6. | 6. | 5. | 1. | 0. | 0. | 0. | 5. | 34. | 24. | 14. | 6. | 0. |
| 90000. | 112. | 3. | 4. | 4. | 3. | 0. | 0. | 2. | 4. | 46. | 21. | 7. | 4. | 0. |
| 95000. | 93. | 3. | 2. | 3. | 2. | 0. | 0. | 0. | 8. | 44. | 25. | 3. | 6. | 3. |
| 100000. | 73. | 0. | 0. | 4. | 1. | 1. | 0. | 3. | 3. | 45. | 29. | 5. | 3. | 5. |

TABLE III (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973

DECEMBER

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | WIND DIRECTIONS (DEGREES) | | | | | | | | | | | | CALM | |
|----------------------------------|--------------|---------------------------|----------|----------|-----------|--------------|------------|--------------|------------|--------------|------------|--------------|------------|--------------|--|
| | | >360 <30 | 30 60 | 60 90 | 90 120 | >120 <150 | 150 180 | >180 <210 | 210 240 | >240 <270 | 270 300 | >300 <330 | 330 360 | >360 <390 | |
| 4940. | 296. | 20. | 7. | 1. | 1. | 0. | 3. | 11. | 6. | 2. | 2. | 4. | 8. | 34. | |
| 5000. | 320. | 18. | 5. | 2. | 1. | 0. | 3. | 11. | 7. | 2. | 2. | 7. | 12. | 30. | |
| 6000. | 321. | 11. | 5. | 4. | 6. | 3. | 1. | 9. | 11. | 5. | 9. | 15. | 22. | 1. | |
| 7000. | 321. | 6. | 3. | 3. | 0. | 0. | 5. | 10. | 20. | 11. | 9. | 13. | 20. | 1. | |
| 8000. | 321. | 5. | 2. | 2. | 2. | 0. | 1. | 7. | 24. | 14. | 10. | 17. | 16. | 0. | |
| 9000. | 326. | 3. | 2. | 2. | 1. | 1. | 1. | 4. | 17. | 21. | 13. | 21. | 12. | 0. | |
| 10000. | 327. | 6. | 1. | 2. | 1. | 1. | 2. | 2. | 13. | 23. | 20. | 20. | 9. | 0. | |
| 11000. | 327. | 5. | 2. | 2. | 1. | 1. | 1. | 2. | 15. | 20. | 23. | 19. | 9. | 0. | |
| 12000. | 327. | 5. | 2. | 3. | 1. | 2. | 1. | 3. | 14. | 20. | 24. | 18. | 7. | 0. | |
| 13000. | 327. | 3. | 1. | 3. | 2. | 1. | 2. | 2. | 15. | 21. | 22. | 18. | 9. | 0. | |
| 14000. | 327. | 3. | 1. | 3. | 2. | 1. | 1. | 4. | 14. | 21. | 25. | 14. | 11. | 0. | |
| 15000. | 326. | 4. | 1. | 2. | 2. | 1. | 1. | 5. | 13. | 24. | 25. | 12. | 10. | 0. | |
| 16000. | 326. | 4. | 2. | 2. | 1. | 2. | 0. | 6. | 12. | 25. | 23. | 14. | 9. | 0. | |
| 18000. | 324. | 4. | 1. | 2. | 1. | 0. | 1. | 4. | 14. | 27. | 23. | 15. | 8. | 0. | |
| 20000. | 319. | 4. | 1. | 1. | 1. | 0. | 1. | 3. | 17. | 27. | 21. | 15. | 8. | 0. | |
| 25000. | 303. | 2. | 1. | 1. | 1. | 1. | 0. | 1. | 16. | 29. | 22. | 15. | 8. | 0. | |
| 30000. | 273. | 3. | 0. | 1. | 1. | 0. | 1. | 2. | 17. | 29. | 23. | 12. | 8. | 1. | |
| 35000. | 242. | 4. | 0. | 2. | 0. | 0. | 0. | 0. | 22. | 21. | 24. | 11. | 8. | 5. | |
| 40000. | 215. | 0. | 0. | 1. | 1. | 0. | 0. | 0. | 16. | 29. | 31. | 13. | 7. | 0. | |
| 45000. | 188. | 1. | 1. | 0. | 0. | 0. | 0. | 1. | 14. | 37. | 31. | 12. | 4. | 0. | |
| 50000. | 176. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 14. | 32. | 31. | 19. | 2. | 1. | |
| 55000. | 153. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 7. | 45. | 25. | 16. | 5. | 0. | |
| 60000. | 150. | 3. | 1. | 0. | 0. | 0. | 0. | 1. | 11. | 33. | 29. | 15. | 7. | 1. | |
| 65000. | 145. | 3. | 3. | 0. | 1. | 0. | 0. | 4. | 6. | 26. | 28. | 13. | 12. | 1. | |
| 70000. | 137. | 4. | 4. | 2. | 4. | 1. | 1. | 1. | 8. | 22. | 28. | 10. | 9. | 0. | |
| 75000. | 135. | 9. | 7. | 4. | 4. | 3. | 1. | 3. | 1. | 27. | 21. | 9. | 11. | 0. | |
| 80000. | 132. | 5. | 11. | 7. | 3. | 2. | 0. | 2. | 3. | 25. | 23. | 11. | 6. | 0. | |
| 85000. | 126. | 5. | 7. | 5. | 1. | 2. | 0. | 1. | 3. | 29. | 33. | 10. | 6. | 0. | |
| 90000. | 120. | 3. | 5. | 4. | 2. | 2. | 1. | 2. | 1. | 37. | 28. | 12. | 2. | 0. | |
| 95000. | 113. | 3. | 2. | 2. | 2. | 0. | 0. | 0. | 2. | 47. | 32. | 7. | 4. | 1. | |
| 100000. | 92. | 1. | 1. | 0. | 1. | 0. | 1. | 0. | 4. | 53. | 30. | 2. | 3. | 2. | |

TABLE IV

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973

JANUARY

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | CALM | > 1 | | > 10 | | > 20 | | > 30 | | > 40 | | > 50 | | > 60 | | > 70 | | > 80 | | > 90 | | > 100 | | > 125 | | > 150 | |
|----------------------------------|--------------|------|------|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|-------|-------|-------|-------|-------|--|
| | | | < 10 | > 1 | < 20 | > 10 | < 30 | > 20 | < 40 | > 30 | < 50 | > 40 | < 60 | > 50 | < 70 | > 60 | < 80 | > 70 | < 90 | > 80 | < 100 | > 90 | < 125 | > 100 | < 150 | > 125 | > 150 | |
| 4940. | 385. | 37. | 48. | 15. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 5000. | 448. | 31. | 51. | 18. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 6000. | 449. | 1. | 65. | 29. | 5. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 7000. | 449. | 0. | 39. | 49. | 10. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 8000. | 447. | 0. | 23. | 53. | 20. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 9000. | 451. | 0. | 16. | 47. | 28. | 7. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 10000. | 452. | 0. | 13. | 40. | 33. | 13. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 11000. | 455. | 0. | 10. | 31. | 36. | 18. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 12000. | 456. | 0. | 10. | 24. | 34. | 25. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 13000. | 456. | 0. | 8. | 21. | 31. | 24. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 14000. | 455. | 0. | 8. | 17. | 29. | 25. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 15000. | 453. | 0. | 6. | 16. | 27. | 24. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 16000. | 451. | 0. | 6. | 14. | 25. | 25. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 18000. | 446. | 0. | 6. | 14. | 21. | 25. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 20000. | 429. | 0. | 5. | 15. | 17. | 23. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 25000. | 393. | 0. | 2. | 9. | 16. | 19. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 30000. | 363. | 0. | 1. | 5. | 13. | 16. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 35000. | 321. | 1. | 0. | 3. | 10. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 40000. | 289. | 0. | 0. | 3. | 7. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 45000. | 260. | 0. | 2. | 2. | 5. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 50000. | 219. | 0. | 1. | 5. | 9. | 14. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 55000. | 179. | 0. | 2. | 6. | 20. | 20. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 60000. | 164. | 0. | 7. | 23. | 32. | 22. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 65000. | 154. | 0. | 21. | 44. | 20. | 6. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 70000. | 146. | 0. | 34. | 39. | 19. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 75000. | 139. | 1. | 37. | 37. | 14. | 6. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 80000. | 122. | 0. | 25. | 41. | 19. | 11. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 85000. | 115. | 0. | 27. | 34. | 20. | 10. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 90000. | 102. | 0. | 22. | 37. | 18. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 95000. | 96. | 0. | 16. | 34. | 18. | 15. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 100000. | 74. | 0. | 16. | 30. | 12. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |

TABLE IV (CONT)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973
 FEBRUARY

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | CALM | WIND SPEED (KNOTS) | | | | | | | | | | 100 - 125 | | 125 - 150 | |
|----------------------------------|--------------|------|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|----|-----------|----|
| | | | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| 4940. | 394. | 22. | 56. | 21. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 5000. | 501. | 21. | 58. | 21. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 6000. | 499. | 0. | 60. | 36. | 4. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 7000. | 499. | 0. | 37. | 48. | 12. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 8000. | 497. | 0. | 27. | 49. | 19. | 4. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 9000. | 497. | 0. | 17. | 52. | 24. | 6. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 10000. | 498. | 0. | 13. | 43. | 31. | 8. | 4. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 11000. | 496. | 0. | 10. | 35. | 37. | 11. | 5. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 12000. | 496. | 0. | 9. | 29. | 31. | 20. | 7. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 13000. | 496. | 0. | 9. | 22. | 33. | 20. | 9. | 5. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 495. | 0. | 8. | 20. | 31. | 22. | 9. | 7. | 3. | 1. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 493. | 0. | 6. | 18. | 29. | 24. | 10. | 7. | 4. | 1. | 0. | 0. | 0. | 0. | 0. | 0. |
| 16000. | 494. | 0. | 7. | 15. | 26. | 24. | 13. | 7. | 5. | 2. | 1. | 0. | 0. | 0. | 0. | 0. |
| 18000. | 491. | 0. | 5. | 11. | 22. | 26. | 14. | 7. | 7. | 4. | 2. | 0. | 0. | 0. | 0. | 0. |
| 20000. | 478. | 0. | 3. | 12. | 17. | 24. | 17. | 9. | 7. | 5. | 3. | 1. | 0. | 0. | 0. | 0. |
| 25000. | 436. | 0. | 3. | 6. | 12. | 16. | 13. | 15. | 13. | 10. | 8. | 6. | 3. | 0. | 0. | 0. |
| 30000. | 396. | 0. | 3. | 4. | 8. | 10. | 12. | 12. | 14. | 14. | 11. | 11. | 8. | 1. | 0. | 0. |
| 35000. | 341. | 1. | 2. | 3. | 5. | 7. | 13. | 11. | 11. | 11. | 9. | 9. | 9. | 5. | 1. | 1. |
| 40000. | 309. | 0. | 1. | 2. | 3. | 6. | 8. | 14. | 15. | 15. | 12. | 12. | 11. | 3. | 1. | 1. |
| 45000. | 274. | 0. | 0. | 1. | 1. | 8. | 9. | 21. | 16. | 16. | 14. | 14. | 4. | 0. | 0. | 0. |
| 50000. | 233. | 0. | 0. | 2. | 6. | 9. | 19. | 21. | 19. | 16. | 14. | 14. | 2. | 0. | 0. | 0. |
| 55000. | 191. | 0. | 1. | 4. | 10. | 18. | 26. | 21. | 12. | 9. | 3. | 3. | 0. | 0. | 0. | 0. |
| 60000. | 175. | 0. | 6. | 26. | 27. | 22. | 7. | 8. | 3. | 1. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 157. | 1. | 20. | 36. | 29. | 9. | 4. | 0. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 131. | 0. | 29. | 41. | 22. | 5. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 122. | 0. | 31. | 37. | 22. | 6. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 111. | 0. | 28. | 34. | 20. | 12. | 5. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 107. | 0. | 24. | 25. | 20. | 17. | 6. | 7. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 100. | 0. | 18. | 28. | 18. | 12. | 11. | 6. | 4. | 1. | 2. | 2. | 0. | 0. | 0. | 0. |
| 95000. | 95. | 0. | 14. | 21. | 18. | 17. | 13. | 6. | 5. | 4. | 2. | 2. | 0. | 0. | 0. | 0. |
| 100000. | 73. | 0. | 8. | 16. | 21. | 26. | 5. | 7. | 5. | 1. | 7. | 1. | 0. | 1. | 0. | 0. |

TABLE IV (CONT)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
 STATION: SITE
 PERIOD OF RECORD 1961-1973
 MARCH

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | CALM | WIND SPEED (KNOTS) | | | | | | | | | | WIND SPEED (KNOTS) | | | | WIND SPEED (KNOTS) | | | |
|----------------------------------|--------------|------|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|--------------------|--------------|------|------|--------------------|------|------|------|
| | | | >1 <10 | >10 <20 | >20 <30 | >30 <40 | >40 <50 | >50 <60 | >60 <70 | >70 <80 | >80 <90 | >90 <100 | >100 <125 | >125 <150 | >150 | >150 | >150 | >150 | >150 | >150 |
| 4940. | 415. | 16. | 53. | 27. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 5000. | 505. | 14. | 54. | 28. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 6000. | 506. | 0. | 52. | 39. | 9. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 7000. | 506. | 0. | 35. | 47. | 15. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 8000. | 506. | 0. | 26. | 47. | 23. | 3. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 9000. | 506. | 0. | 17. | 47. | 27. | 8. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 10000. | 505. | 0. | 14. | 39. | 33. | 12. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 11000. | 502. | 0. | 11. | 34. | 33. | 18. | 4. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 12000. | 502. | 0. | 7. | 26. | 37. | 19. | 8. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 13000. | 502. | 0. | 6. | 22. | 32. | 26. | 10. | 4. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 500. | 0. | 4. | 18. | 32. | 23. | 14. | 8. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 500. | 0. | 3. | 14. | 31. | 21. | 16. | 10. | 4. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 16000. | 500. | 0. | 2. | 10. | 26. | 25. | 17. | 11. | 6. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 18000. | 499. | 0. | 2. | 8. | 19. | 24. | 16. | 15. | 9. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 20000. | 490. | 0. | 2. | 7. | 15. | 22. | 17. | 12. | 11. | 9. | 3. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 25000. | 441. | 0. | 1. | 4. | 9. | 11. | 17. | 14. | 10. | 12. | 9. | 6. | 6. | 1. | 0. | 0. | 0. | 0. | 0. | 0. |
| 30000. | 397. | 0. | 1. | 5. | 6. | 10. | 9. | 10. | 11. | 13. | 10. | 10. | 13. | 3. | 1. | 0. | 0. | 0. | 0. | 0. |
| 35000. | 329. | 1. | 1. | 3. | 5. | 9. | 9. | 9. | 12. | 11. | 14. | 13. | 13. | 3. | 1. | 0. | 0. | 0. | 0. | 0. |
| 40000. | 269. | 2. | 0. | 1. | 7. | 8. | 12. | 8. | 16. | 17. | 10. | 9. | 9. | 4. | 0. | 0. | 0. | 0. | 0. | 0. |
| 45000. | 242. | 2. | 1. | 2. | 4. | 10. | 13. | 15. | 19. | 15. | 11. | 10. | 11. | 2. | 0. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 208. | 1. | 1. | 3. | 7. | 14. | 16. | 20. | 24. | 10. | 1. | 0. | 3. | 2. | 0. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 173. | 1. | 1. | 8. | 18. | 17. | 21. | 20. | 8. | 4. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 152. | 0. | 9. | 24. | 36. | 18. | 7. | 3. | 3. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 136. | 0. | 21. | 43. | 26. | 7. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 129. | 1. | 43. | 36. | 12. | 4. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 117. | 0. | 46. | 38. | 11. | 1. | 3. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 107. | 0. | 32. | 36. | 22. | 6. | 1. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 102. | 1. | 26. | 38. | 25. | 7. | 0. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 91. | 0. | 14. | 37. | 27. | 12. | 5. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 95000. | 83. | 0. | 18. | 12. | 30. | 20. | 17. | 1. | 0. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 100000. | 62. | 2. | 6. | 16. | 31. | 18. | 13. | 6. | 6. | 0. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IV (CONT)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973

APRIL

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | CAL ⁽¹⁾ | 10 | | 20 | | 30 | | 40 | | WIND SPEED (KNOTS) | | | | | 80 | | 90 | | 100 | | 125 | | 150 | |
|----------------------------------|--------------|--------------------|-----|-----|-----|-----|-----|----|----|----|--------------------|-----|-----|-----|-----|----|----|----|----|-----|----|-----|----|-----|----|
| | | | | | | | | | | | <40 | <50 | <60 | <70 | <80 | | | | | | | | | | |
| 4940. | 444. | 16. | 50. | 29. | 5. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 5000. | 559. | 14. | 53. | 29. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 6000. | 559. | 1. | 54. | 36. | 9. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 7000. | 559. | 0. | 42. | 41. | 13. | 4. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 8000. | 558. | 0. | 35. | 44. | 15. | 5. | 5. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 9000. | 559. | 0. | 29. | 44. | 20. | 5. | 5. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 10000. | 559. | 0. | 22. | 44. | 24. | 7. | 7. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 11000. | 559. | 0. | 17. | 42. | 25. | 12. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 12000. | 559. | 0. | 14. | 36. | 28. | 13. | 13. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 13000. | 559. | 0. | 12. | 29. | 30. | 16. | 16. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 560. | 0. | 11. | 26. | 29. | 17. | 17. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 560. | 0. | 10. | 21. | 31. | 15. | 15. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 16000. | 559. | 0. | 9. | 18. | 30. | 19. | 19. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 18000. | 552. | 0. | 9. | 13. | 26. | 22. | 22. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 20000. | 526. | 1. | 5. | 12. | 19. | 22. | 22. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 25000. | 482. | 0. | 1. | 11. | 11. | 15. | 15. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 30000. | 453. | 2. | 0. | 8. | 9. | 10. | 10. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 35000. | 353. | 2. | 0. | 5. | 7. | 5. | 5. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 40000. | 290. | 3. | 0. | 2. | 6. | 9. | 9. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 45000. | 255. | 0. | 0. | 3. | 10. | 7. | 7. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 230. | 0. | 0. | 4. | 10. | 16. | 16. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 192. | 0. | 1. | 10. | 24. | 25. | 25. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 173. | 1. | 11. | 41. | 26. | 13. | 13. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 162. | 2. | 43. | 35. | 14. | 4. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 147. | 0. | 61. | 33. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 140. | 0. | 53. | 30. | 9. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 125. | 0. | 57. | 30. | 10. | 3. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 116. | 2. | 45. | 36. | 16. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 110. | 1. | 36. | 39. | 18. | 4. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 95000. | 98. | 4. | 26. | 31. | 29. | 10. | 10. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 100000. | 73. | 3. | 15. | 27. | 29. | 15. | 15. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IV (CONT)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
 STATION SITE
 PERIOD OF RECORD 1961-1973
 MAY

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | CALM | 10 | | 20 | | 30 | | 40 | | 50 | | 60 | | 70 | | 80 | | 90 | | 100 | | 125 | | 150 | |
|----------------------------------|--------------|------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|--------|------|---------|------|------|------|------|
| | | | <10 | 10-20 | <20 | 20-30 | <30 | 30-40 | <40 | 40-50 | <50 | 50-60 | <60 | 60-70 | <70 | 70-80 | <80 | 80-90 | <90 | 90-100 | <100 | 100-125 | <125 | >125 | <150 | >150 |
| 4940. | 443. | 17. | 56. | 25. | 25. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 5000. | 488. | 15. | 55. | 27. | 27. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 6000. | 488. | 0. | 60. | 34. | 34. | 6. | 6. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 7000. | 488. | 0. | 48. | 39. | 39. | 11. | 11. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 8000. | 488. | 0. | 40. | 43. | 43. | 13. | 13. | 3. | 3. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 9000. | 490. | 0. | 37. | 47. | 47. | 13. | 13. | 2. | 2. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 10000. | 491. | 0. | 33. | 47. | 47. | 15. | 15. | 3. | 3. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 11000. | 488. | 0. | 29. | 45. | 45. | 19. | 19. | 5. | 5. | 2. | 2. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 12000. | 487. | 0. | 26. | 43. | 43. | 20. | 20. | 7. | 7. | 2. | 2. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 13000. | 485. | 0. | 20. | 40. | 40. | 25. | 25. | 9. | 9. | 3. | 3. | 2. | 2. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 483. | 0. | 18. | 35. | 35. | 27. | 27. | 12. | 12. | 5. | 5. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 479. | 0. | 16. | 32. | 32. | 28. | 28. | 13. | 13. | 6. | 6. | 3. | 3. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 16000. | 478. | 0. | 15. | 29. | 29. | 28. | 28. | 15. | 15. | 8. | 8. | 4. | 4. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 18000. | 474. | 0. | 11. | 28. | 28. | 26. | 26. | 14. | 14. | 12. | 12. | 5. | 5. | 2. | 2. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 20000. | 464. | 0. | 7. | 27. | 27. | 25. | 25. | 16. | 16. | 13. | 13. | 6. | 6. | 3. | 3. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 25000. | 449. | 0. | 6. | 19. | 19. | 20. | 20. | 18. | 18. | 14. | 14. | 10. | 10. | 6. | 6. | 4. | 4. | 2. | 2. | 1. | 1. | 2. | 0. | 0. | 0. | 0. |
| 30000. | 416. | 2. | 3. | 15. | 15. | 17. | 17. | 16. | 16. | 12. | 12. | 12. | 12. | 10. | 10. | 5. | 6. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. |
| 35000. | 333. | 2. | 3. | 8. | 8. | 15. | 15. | 17. | 17. | 11. | 11. | 13. | 13. | 9. | 9. | 8. | 8. | 2. | 2. | 3. | 3. | 3. | 1. | 0. | 0. | 0. |
| 40000. | 285. | 2. | 1. | 8. | 8. | 13. | 13. | 14. | 14. | 13. | 13. | 12. | 12. | 10. | 10. | 7. | 10. | 3. | 3. | 1. | 1. | 1. | 0. | 0. | 0. | 0. |
| 45000. | 269. | 1. | 2. | 7. | 7. | 11. | 11. | 19. | 19. | 18. | 18. | 15. | 15. | 11. | 11. | 9. | 4. | 1. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 0. |
| 50000. | 232. | 0. | 1. | 8. | 8. | 21. | 21. | 25. | 25. | 24. | 24. | 12. | 12. | 6. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 188. | 0. | 5. | 29. | 29. | 29. | 29. | 23. | 23. | 7. | 7. | 5. | 5. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 174. | 1. | 44. | 40. | 40. | 10. | 10. | 3. | 3. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 154. | 0. | 69. | 28. | 28. | 3. | 3. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 142. | 1. | 68. | 30. | 30. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 133. | 0. | 53. | 44. | 44. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 127. | 0. | 43. | 46. | 46. | 12. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 121. | 1. | 45. | 40. | 40. | 12. | 12. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 115. | 0. | 41. | 47. | 47. | 10. | 10. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 95000. | 99. | 2. | 27. | 55. | 55. | 12. | 12. | 4. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 100000. | 76. | 3. | 32. | 47. | 47. | 14. | 14. | 3. | 3. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IV (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
STATION SITE
PERIOD OF RECORD 1961-1973

JUNE

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | CALM | 10 | | 20 | | 30 | | 40 | | 50 | | 60 | | 70 | | 80 | | 90 | | 100 | | 125 | | 150 | |
|----------------------------------|--------------|------|-----|-----|-----|-----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | | 10 | 20 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 | 210 | 220 |
| 4940. | 343. | 15. | 60. | 25. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 5000. | 369. | 15. | 59. | 26. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 6000. | 370. | 0. | 66. | 29. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 7000. | 369. | 0. | 50. | 41. | 8. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 8000. | 370. | 0. | 45. | 43. | 11. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 9000. | 370. | 0. | 44. | 41. | 14. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 10000. | 373. | 0. | 41. | 43. | 14. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 11000. | 373. | 0. | 35. | 45. | 17. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 12000. | 375. | 0. | 31. | 43. | 19. | 5. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 13000. | 373. | 0. | 30. | 35. | 23. | 9. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 373. | 0. | 26. | 36. | 22. | 13. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 371. | 1. | 22. | 36. | 21. | 14. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 16000. | 370. | 1. | 18. | 37. | 22. | 15. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 18000. | 367. | 0. | 15. | 32. | 25. | 15. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 20000. | 360. | 0. | 14. | 29. | 26. | 15. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 25000. | 333. | 0. | 9. | 26. | 26. | 19. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 30000. | 309. | 1. | 7. | 14. | 24. | 20. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 35000. | 257. | 2. | 4. | 11. | 19. | 18. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 40000. | 220. | 1. | 4. | 3. | 22. | 16. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 45000. | 203. | 0. | 1. | 11. | 15. | 19. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 191. | 1. | 5. | 18. | 27. | 23. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 171. | 0. | 21. | 47. | 23. | 8. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 158. | 1. | 44. | 47. | 6. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 139. | 0. | 33. | 58. | 7. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 133. | 0. | 19. | 63. | 17. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 128. | 1. | 5. | 59. | 34. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 124. | 0. | 6. | 42. | 45. | 7. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 118. | 0. | 9. | 34. | 43. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 112. | 0. | 5. | 33. | 42. | 19. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 95000. | 100. | 1. | 4. | 26. | 41. | 27. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 100000. | 85. | 1. | 7. | 19. | 39. | 33. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IV (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973

JULY

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | CALM | 1 | | 10 | | 20 | | 30 | | 40 | | 50 | | 60 | | 70 | | 80 | | 90 | | 100 | | 125 | | 150 | |
|----------------------------------|--------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| | | | >1 | <1 | >10 | <10 | >20 | <20 | >30 | <30 | >40 | <40 | >50 | <50 | >60 | <60 | >70 | <70 | >80 | <80 | >90 | <90 | >100 | <100 | >125 | <125 | >150 | <150 |
| 4940. | 363. | 25. | 64. | 64. | 11. | 11. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 5000. | 386. | 22. | 66. | 66. | 11. | 11. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 6000. | 386. | 2. | 83. | 83. | 15. | 15. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 7000. | 386. | 1. | 74. | 74. | 23. | 23. | 2. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 8000. | 386. | 0. | 70. | 70. | 28. | 28. | 2. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 9000. | 388. | 0. | 66. | 66. | 32. | 32. | 2. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 10000. | 389. | 1. | 64. | 64. | 34. | 34. | 2. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 11000. | 391. | 0. | 60. | 60. | 37. | 37. | 2. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 12000. | 392. | 0. | 59. | 59. | 37. | 37. | 4. | 4. | 4. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 13000. | 392. | 0. | 54. | 54. | 40. | 40. | 6. | 6. | 6. | 6. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 392. | 0. | 47. | 47. | 47. | 47. | 6. | 6. | 6. | 6. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 391. | 0. | 43. | 43. | 50. | 50. | 5. | 5. | 5. | 5. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 16000. | 390. | 0. | 40. | 40. | 52. | 52. | 7. | 7. | 7. | 7. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 18000. | 388. | 0. | 41. | 41. | 47. | 47. | 10. | 10. | 10. | 10. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 20000. | 383. | 0. | 46. | 46. | 45. | 45. | 9. | 9. | 9. | 9. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 25000. | 353. | 0. | 38. | 38. | 49. | 49. | 11. | 11. | 11. | 11. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 30000. | 335. | 0. | 27. | 27. | 44. | 44. | 22. | 22. | 22. | 22. | 6. | 6. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 35000. | 294. | 1. | 15. | 15. | 39. | 39. | 28. | 28. | 28. | 28. | 10. | 10. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 40000. | 244. | 0. | 11. | 11. | 37. | 37. | 25. | 25. | 25. | 25. | 18. | 18. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 45000. | 218. | 0. | 19. | 19. | 39. | 39. | 22. | 22. | 22. | 22. | 16. | 16. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 205. | 1. | 35. | 35. | 43. | 43. | 15. | 15. | 15. | 15. | 5. | 5. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 174. | 0. | 44. | 44. | 47. | 47. | 9. | 9. | 9. | 9. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 165. | 0. | 18. | 18. | 65. | 65. | 16. | 16. | 16. | 16. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 153. | 0. | 5. | 5. | 42. | 42. | 53. | 53. | 53. | 53. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 147. | 0. | 1. | 1. | 34. | 34. | 48. | 48. | 48. | 48. | 17. | 17. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 141. | 0. | 0. | 0. | 11. | 11. | 69. | 69. | 69. | 69. | 19. | 19. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 138. | 0. | 0. | 0. | 5. | 5. | 57. | 57. | 57. | 57. | 36. | 36. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 129. | 0. | 0. | 0. | 3. | 3. | 30. | 30. | 30. | 30. | 57. | 57. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 122. | 0. | 0. | 0. | 0. | 0. | 22. | 22. | 22. | 22. | 48. | 48. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 95000. | 116. | 0. | 0. | 0. | 0. | 0. | 6. | 6. | 6. | 6. | 52. | 52. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 100000. | 105. | 1. | 0. | 0. | 0. | 0. | 8. | 8. | 8. | 8. | 45. | 45. | 0. | 0. | 0. | 0. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IV (CONT)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973

AUGUST

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | CALM | ≥ 1 | | ≥ 10 | | ≥ 20 | | ≥ 30 | | ≥ 40 | | ≥ 50 | | ≥ 60 | | ≥ 70 | | ≥ 80 | | ≥ 90 | | ≥ 100 | | ≥ 125 | | ≥ 150 | |
|----------------------------------|--------------|------|-----|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|------|-------|------|-------|------|-------|------|
| | | | > | <10 | > | <20 | > | <30 | > | <40 | > | <50 | > | <60 | > | <70 | > | <80 | > | <90 | > | <100 | > | <125 | > | <150 | > | <150 |
| 4940. | 384. | 22. | 66. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 5000. | 407. | 22. | 66. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 5000. | 407. | 1. | 85. | 14. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 7000. | 408. | 1. | 72. | 26. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 8000. | 408. | 1. | 66. | 30. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 9000. | 410. | 0. | 63. | 33. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 10000. | 410. | 0. | 60. | 36. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 11000. | 411. | 0. | 57. | 38. | 5. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 12000. | 411. | 0. | 50. | 43. | 6. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 13000. | 412. | 0. | 45. | 47. | 7. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 411. | 0. | 45. | 46. | 7. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 411. | 0. | 41. | 49. | 9. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 16000. | 410. | 0. | 37. | 51. | 11. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 18000. | 406. | 0. | 35. | 50. | 13. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 20000. | 404. | 0. | 35. | 51. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 25000. | 385. | 0. | 31. | 46. | 18. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 30000. | 369. | 0. | 20. | 38. | 28. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 35000. | 330. | 0. | 14. | 34. | 27. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 40000. | 296. | 0. | 14. | 31. | 21. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 45000. | 260. | 0. | 15. | 34. | 26. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 238. | 0. | 35. | 39. | 16. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 212. | 0. | 49. | 46. | 5. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 198. | 1. | 30. | 56. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 189. | 1. | 10. | 58. | 29. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 176. | 1. | 4. | 36. | 58. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 166. | 0. | 0. | 17. | 64. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 158. | 0. | 0. | 10. | 52. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 154. | 0. | 0. | 3. | 44. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 137. | 0. | 0. | 1. | 30. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 95000. | 123. | 1. | 0. | 1. | 19. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 100000. | 106. | 0. | 0. | 0. | 17. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IV (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973

SEPTEMBER

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | CALM | > 1 < 10 | | > 10 < 20 | | > 20 < 30 | | > 30 < 40 | | WIND SPEED (KNOTS) | | | | | | > 80 < 90 | | > 90 < 100 | | > 100 < 125 | | > 125 < 150 | | > 150 | |
|----------------------------------|--------------|------|-------------|-----|--------------|-----|--------------|----|--------------|----|--------------------|--------------|--------------|--------------|--------------|---------------|--------------|----|---------------|----|----------------|----|----------------|----|-------|----|
| | | | | | | | | | | | > 40 < 50 | > 50 < 60 | > 60 < 70 | > 70 < 80 | > 80 < 90 | > 90 < 100 | | | | | | | | | | |
| 4940. | 324. | 24. | 62. | 13. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 5000. | 366. | 21. | 64. | 14. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 6000. | 365. | 1. | 76. | 21. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 7000. | 366. | 1. | 61. | 33. | 4. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 8000. | 366. | 0. | 51. | 40. | 8. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 9000. | 367. | 0. | 45. | 43. | 11. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 10000. | 366. | 0. | 43. | 44. | 13. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 11000. | 365. | 0. | 38. | 44. | 14. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 12000. | 365. | 0. | 34. | 43. | 17. | 4. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 13000. | 365. | 0. | 32. | 44. | 18. | 4. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 365. | 0. | 29. | 45. | 17. | 5. | 3. | 0. | 0. | 0. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 364. | 0. | 29. | 44. | 16. | 5. | 4. | 0. | 0. | 0. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 16000. | 364. | 0. | 27. | 45. | 15. | 6. | 4. | 0. | 0. | 0. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 18000. | 362. | 0. | 23. | 44. | 17. | 7. | 6. | 0. | 0. | 0. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 20000. | 360. | 0. | 23. | 37. | 21. | 7. | 6. | 0. | 0. | 0. | 3. | 3. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 25000. | 346. | 0. | 12. | 31. | 28. | 14. | 7. | 0. | 0. | 0. | 7. | 4. | 2. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 30000. | 326. | 1. | 6. | 17. | 25. | 19. | 19. | 0. | 0. | 0. | 13. | 7. | 5. | 6. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 35000. | 278. | 0. | 4. | 7. | 19. | 19. | 16. | 0. | 0. | 0. | 16. | 16. | 8. | 10. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 40000. | 254. | 0. | 1. | 6. | 11. | 20. | 17. | 0. | 0. | 0. | 15. | 15. | 13. | 10. | 5. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 45000. | 233. | 0. | 2. | 5. | 13. | 20. | 24. | 0. | 0. | 0. | 15. | 15. | 11. | 6. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 220. | 0. | 3. | 13. | 33. | 22. | 17. | 0. | 0. | 0. | 17. | 8. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 197. | 1. | 21. | 42. | 27. | 5. | 3. | 0. | 0. | 0. | 3. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 185. | 1. | 50. | 42. | 6. | 1. | 1. | 0. | 0. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 175. | 0. | 53. | 44. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 164. | 0. | 42. | 45. | 12. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 158. | 0. | 36. | 42. | 19. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 152. | 0. | 30. | 41. | 26. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 144. | 1. | 24. | 47. | 23. | 6. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 132. | 1. | 25. | 39. | 31. | 5. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 95000. | 116. | 1. | 20. | 45. | 32. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 100000. | 103. | 1. | 19. | 35. | 35. | 8. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IV (CONT)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
 STATION SITE
 PERIOD OF RECORD 1961-1973

OCTOBER

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | CALM | WIND SPEED (KNOTS) | | | | | | | | | | WIND SPEED (KNOTS) | | | | | | | | | | | | | |
|----------------------------------|--------------|------|--------------------|------|------|------|------|------|------|------|------|------|--------------------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|
| | | | < 10 | > 10 | < 20 | > 20 | < 30 | > 30 | < 40 | > 40 | < 50 | > 50 | < 60 | > 60 | < 70 | > 70 | < 80 | > 80 | < 90 | > 90 | < 100 | > 100 | < 125 | > 125 | < 150 | > 150 |
| 4940. | 367. | 26. | 58. | 15. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 5000. | 415. | 23. | 61. | 14. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 6000. | 415. | 0. | 75. | 22. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 7000. | 416. | 0. | 59. | 34. | 6. | 6. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 8000. | 416. | 0. | 47. | 42. | 9. | 9. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 9000. | 416. | 0. | 41. | 44. | 12. | 12. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 10000. | 417. | 0. | 33. | 47. | 16. | 16. | 3. | 3. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 11000. | 417. | 0. | 27. | 48. | 16. | 16. | 6. | 6. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 12000. | 417. | 0. | 23. | 46. | 19. | 19. | 9. | 9. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 13000. | 418. | 0. | 21. | 41. | 22. | 22. | 9. | 9. | 5. | 5. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 418. | 0. | 22. | 37. | 23. | 23. | 11. | 11. | 5. | 5. | 1. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 416. | 0. | 20. | 36. | 22. | 22. | 14. | 14. | 4. | 4. | 2. | 2. | 2. | 2. | 2. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 16000. | 416. | 0. | 17. | 35. | 26. | 26. | 13. | 13. | 3. | 3. | 3. | 3. | 3. | 3. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 18000. | 415. | 0. | 18. | 26. | 27. | 27. | 17. | 17. | 6. | 6. | 6. | 6. | 6. | 3. | 3. | 2. | 2. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 20000. | 411. | 0. | 17. | 22. | 27. | 27. | 19. | 19. | 9. | 9. | 9. | 9. | 9. | 4. | 4. | 2. | 2. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 25000. | 389. | 1. | 12. | 16. | 21. | 21. | 23. | 23. | 13. | 13. | 13. | 13. | 13. | 7. | 7. | 3. | 3. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 30000. | 364. | 2. | 9. | 11. | 16. | 16. | 18. | 18. | 18. | 18. | 18. | 18. | 18. | 9. | 9. | 7. | 7. | 5. | 5. | 2. | 2. | 1. | 1. | 1. | 0. | 0. |
| 35000. | 316. | 3. | 4. | 12. | 10. | 10. | 13. | 13. | 17. | 17. | 17. | 17. | 17. | 15. | 15. | 7. | 7. | 8. | 8. | 8. | 8. | 2. | 2. | 2. | 0. | 0. |
| 40000. | 289. | 3. | 3. | 9. | 12. | 12. | 11. | 11. | 13. | 13. | 13. | 13. | 13. | 15. | 15. | 11. | 11. | 10. | 10. | 9. | 9. | 3. | 3. | 3. | 0. | 0. |
| 45000. | 256. | 0. | 1. | 10. | 15. | 15. | 13. | 13. | 21. | 21. | 21. | 21. | 21. | 11. | 11. | 13. | 13. | 10. | 10. | 5. | 5. | 2. | 2. | 2. | 0. | 0. |
| 50000. | 248. | 2. | 4. | 15. | 21. | 21. | 20. | 20. | 18. | 18. | 18. | 18. | 18. | 9. | 9. | 17. | 17. | 12. | 12. | 1. | 1. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 221. | 1. | 9. | 34. | 27. | 27. | 16. | 16. | 6. | 6. | 6. | 6. | 6. | 2. | 2. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 213. | 0. | 43. | 41. | 13. | 13. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 202. | 0. | 57. | 36. | 5. | 5. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 196. | 1. | 64. | 32. | 3. | 3. | 1. | 1. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 186. | 1. | 54. | 39. | 5. | 5. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 175. | 1. | 50. | 39. | 10. | 10. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 165. | 1. | 44. | 38. | 13. | 13. | 4. | 4. | 1. | 1. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 152. | 1. | 37. | 25. | 20. | 20. | 13. | 13. | 1. | 1. | 1. | 1. | 1. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 95000. | 134. | 3. | 28. | 26. | 19. | 19. | 18. | 18. | 6. | 6. | 6. | 6. | 6. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 100000. | 114. | 4. | 23. | 28. | 12. | 12. | 19. | 19. | 11. | 11. | 11. | 11. | 11. | 4. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IV (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973
NOVEMBER

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | CALM | WIND SPEED (KNOTS) | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--------------|------|--------------------|------------|------------|------------|------------|------------|------------|------------|-------------|--------------|--------------|------|-----|-----|-----|----|----|----|----|----|----|----|
| | | | >1 <10 | >20 <30 | >30 <40 | >40 <50 | >50 <60 | >60 <70 | >70 <80 | >80 <90 | >90 <100 | >100 <125 | >125 <150 | >150 | | | | | | | | | | |
| 4940. | 348. | 24. | 56. | 18. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 5000. | 406. | 21. | 60. | 18. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 6000. | 405. | 0. | 60. | 36. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 7000. | 405. | 0. | 41. | 44. | 11. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 8000. | 406. | 0. | 31. | 45. | 17. | 4. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 9000. | 407. | 0. | 21. | 47. | 23. | 6. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 10000. | 407. | 0. | 15. | 46. | 28. | 9. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 11000. | 408. | 0. | 11. | 38. | 33. | 13. | 3. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 12000. | 405. | 0. | 10. | 31. | 31. | 20. | 7. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 13000. | 404. | 0. | 10. | 26. | 31. | 13. | 11. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 404. | 0. | 8. | 25. | 28. | 20. | 14. | 4. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 403. | 0. | 8. | 19. | 26. | 23. | 15. | 7. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 16000. | 403. | 0. | 7. | 18. | 23. | 25. | 12. | 11. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 18000. | 402. | 0. | 4. | 16. | 21. | 22. | 16. | 11. | 6. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 20000. | 391. | 0. | 3. | 16. | 18. | 20. | 16. | 13. | 6. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 25000. | 345. | 0. | 2. | 9. | 16. | 14. | 16. | 12. | 10. | 10. | 12. | 10. | 9. | 7. | 12. | 10. | 6. | 3. | 1. | 3. | 3. | 0. | 0. | 0. |
| 30000. | 322. | 1. | 1. | 5. | 10. | 15. | 15. | 13. | 9. | 15. | 13. | 12. | 10. | 7. | 12. | 10. | 8. | 6. | 7. | 6. | 6. | 1. | 0. | 0. |
| 35000. | 293. | 8. | 1. | 3. | 6. | 9. | 13. | 16. | 7. | 13. | 16. | 15. | 12. | 9. | 15. | 12. | 11. | 5. | 7. | 8. | 9. | 2. | 0. | 0. |
| 40000. | 233. | 2. | 1. | 1. | 4. | 10. | 14. | 15. | 12. | 14. | 15. | 15. | 14. | 10. | 15. | 14. | 10. | 5. | 5. | 9. | 5. | 2. | 0. | 0. |
| 45000. | 211. | 0. | 1. | 3. | 7. | 8. | 18. | 16. | 17. | 18. | 16. | 16. | 17. | 14. | 17. | 17. | 6. | 4. | 4. | 6. | 5. | 0. | 0. | 0. |
| 50000. | 193. | 1. | 2. | 5. | 9. | 15. | 19. | 22. | 19. | 15. | 22. | 22. | 19. | 16. | 19. | 19. | 6. | 0. | 0. | 3. | 0. | 0. | 0. | 0. |
| 55000. | 164. | 1. | 3. | 14. | 15. | 23. | 19. | 15. | 8. | 23. | 15. | 11. | 8. | 14. | 19. | 15. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 152. | 0. | 11. | 29. | 30. | 18. | 7. | 3. | 3. | 18. | 3. | 3. | 3. | 29. | 7. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 148. | 1. | 25. | 39. | 18. | 14. | 3. | 1. | 0. | 14. | 1. | 1. | 0. | 39. | 14. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 143. | 0. | 27. | 43. | 17. | 10. | 3. | 0. | 0. | 10. | 0. | 0. | 0. | 43. | 10. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 134. | 0. | 33. | 33. | 23. | 7. | 3. | 1. | 0. | 7. | 1. | 0. | 0. | 33. | 7. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 130. | 2. | 25. | 29. | 25. | 9. | 6. | 3. | 1. | 9. | 3. | 1. | 0. | 29. | 9. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 122. | 0. | 18. | 32. | 25. | 8. | 7. | 7. | 2. | 8. | 7. | 7. | 1. | 32. | 8. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 112. | 2. | 11. | 32. | 21. | 11. | 6. | 5. | 7. | 11. | 6. | 5. | 2. | 32. | 11. | 5. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 95000. | 93. | 3. | 10. | 20. | 18. | 16. | 6. | 9. | 8. | 16. | 6. | 9. | 7. | 20. | 16. | 9. | 4. | 1. | 0. | 0. | 0. | 0. | 0. | 0. |
| 100000. | 73. | 5. | 5. | 14. | 15. | 15. | 16. | 7. | 12. | 15. | 16. | 7. | 12. | 14. | 15. | 7. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IV (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
STATION SITE
PERIOD OF RECORD 1961-1973

DECEMBER

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | CALM | WIND SPEED (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | | | | | WIND SPPEEN (KNOTS) | | | | | | 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| | | | | +N | -S | | | | | |
| 4940. | 1075. | 24. | 0. | 1.5 | -7 | 336. | 2. | 5. | 36. | 7. |
| 5000. | 1269. | 24. | 0. | 1.4 | -7 | 333. | 2. | 5. | 31. | 7. |
| 6000. | 1269. | 37. | 0. | 2.1 | -2.2 | 314. | 3. | 9. | 35. | 10. |
| 7000. | 1269. | 63. | 0. | 1.3 | -5.2 | 285. | 5. | 12. | 43. | 13. |
| 8000. | 1265. | 51. | 1. | 1.6 | -7.8 | 282. | 8. | 15. | 53. | 15. |
| 9000. | 1274. | 52. | 0. | 2.4 | -10.0 | 284. | 10. | 17. | 60. | 16. |
| 10000. | 1277. | 60. | 0. | 3.3 | -12.3 | 285. | 13. | 20. | 65. | 18. |
| 11000. | 1278. | 66. | 0. | 4.1 | -14.7 | 286. | 15. | 22. | 69. | 19. |
| 12000. | 1279. | 66. | 0. | 4.7 | -17.0 | 285. | 18. | 25. | 72. | 21. |
| 13000. | 1279. | 73. | 1. | 4.8 | -19.1 | 284. | 20. | 27. | 73. | 23. |
| 14000. | 1277. | 78. | 2. | 4.8 | -20.9 | 283. | 21. | 29. | 74. | 24. |
| 15000. | 1272. | 84. | 2. | 4.8 | -22.4 | 282. | 23. | 31. | 74. | 26. |
| 16000. | 1271. | 100. | 0. | 4.8 | -23.7 | 281. | 24. | 33. | 74. | 28. |
| 18000. | 1261. | 107. | 0. | 4.6 | -26.1 | 280. | 27. | 36. | 74. | 30. |
| 20000. | 1226. | 119. | 2. | 4.6 | -28.8 | 279. | 29. | 39. | 74. | 33. |
| 25000. | 1132. | 164. | 1. | 4.4 | -36.0 | 277. | 36. | 49. | 74. | 42. |
| 30000. | 1032. | 202. | 0. | 3.1 | -43.2 | 274. | 43. | 57. | 76. | 48. |
| 35000. | 904. | 179. | 0. | 2.0 | -50.1 | 272. | 50. | 64. | 79. | 51. |
| 40000. | 813. | 186. | 3. | .2 | -56.8 | 270. | 57. | 66. | 86. | 46. |
| 45000. | 722. | 142. | 4. | .4 | -53.2 | 270. | 53. | 60. | 89. | 36. |
| 50000. | 628. | 124. | 0. | -.2 | -46.5 | 270. | 47. | 52. | 90. | 30. |
| 55000. | 523. | 107. | 5. | 1.0 | -39.1 | 271. | 39. | 43. | 91. | 25. |
| 60000. | 489. | 97. | 0. | 1.4 | -24.3 | 273. | 24. | 28. | 86. | 21. |
| 65000. | 456. | 112. | 0. | 2.8 | -14.5 | 281. | 15. | 19. | 77. | 18. |
| 70000. | 414. | 74. | 1. | 2.2 | -8.7 | 284. | 9. | 16. | 56. | 17. |
| 75000. | 396. | 71. | 0. | 2.5 | -6.4 | 291. | 7. | 16. | 43. | 18. |
| 80000. | 365. | 89. | 1. | 2.5 | -6.1 | 292. | 7. | 18. | 36. | 22. |
| 85000. | 348. | 100. | 1. | 2.5 | -8.2 | 287. | 9. | 22. | 39. | 26. |
| 90000. | 322. | 95. | 1. | 1.0 | -12.9 | 274. | 13. | 26. | 49. | 30. |
| 95000. | 304. | 120. | 0. | -.3 | -18.0 | 269. | 18. | 33. | 55. | 36. |
| 100000. | 239. | 139. | 0. | -1.3 | -23.8 | 267. | 24. | 40. | 60. | 42. |

TABLE V (CONT)
 UPPER AIR WIND DATA AT SELECTED LEVELS BY SEASONS
 STATION SITE
 PERIOD OF RECORD 1961-1973

SPRING

| GEO METRIC ALTITUDE MSL FEET | TOTAL OBS | MAXIMUM SPEED (KNOTS) | MINIMUM SPEED (KNOTS) | RESULTANT WIND COMPONENTS (KNOTS) | | | RESULTANT DIRECTION (DEGREES) | WIND SPEED (KNOTS) | SCALAR MEAN SPEED (KNOTS) | CONSTANCY (PERCENT) | STANDARD VECTOR DEVIATION (KNOTS) |
|------------------------------------|--------------|-----------------------------|-----------------------------|--------------------------------------|----|-------|-------------------------------------|--------------------------|------------------------------------|------------------------|--|
| | | | | +N | -S | +E | -W | | | | |
| 4940. | 1302. | 33. | 0. | -1.1 | | -1.1 | 225. | 2. | 7. | 22. | 9. |
| 5000. | 1552. | 32. | 0. | -1.1 | | -1.1 | 226. | 2. | 7. | 21. | 9. |
| 6000. | 1553. | 32. | 0. | -1.7 | | -2.6 | 236. | 3. | 10. | 31. | 11. |
| 7000. | 1553. | 41. | 1. | -3.1 | | -4.7 | 237. | 6. | 12. | 45. | 13. |
| 8000. | 1552. | 46. | 1. | -3.5 | | -6.4 | 241. | 7. | 14. | 53. | 14. |
| 9000. | 1555. | 54. | 0. | -3.7 | | -8.2 | 246. | 9. | 15. | 60. | 15. |
| 10000. | 1555. | 58. | 0. | -3.6 | | -10.3 | 251. | 11. | 17. | 66. | 16. |
| 11000. | 1549. | 63. | 0. | -3.6 | | -12.6 | 254. | 13. | 19. | 70. | 17. |
| 12000. | 1548. | 68. | 0. | -3.7 | | -15.1 | 256. | 16. | 21. | 74. | 18. |
| 13000. | 1546. | 69. | 0. | -4.0 | | -17.5 | 257. | 18. | 23. | 77. | 20. |
| 14000. | 1543. | 71. | 0. | -4.2 | | -19.7 | 258. | 20. | 26. | 78. | 21. |
| 15000. | 1539. | 81. | 0. | -4.4 | | -21.8 | 259. | 22. | 28. | 80. | 23. |
| 16000. | 1537. | 92. | 0. | -4.4 | | -23.8 | 259. | 24. | 30. | 81. | 24. |
| 18000. | 1525. | 91. | 0. | -4.9 | | -27.5 | 260. | 28. | 34. | 82. | 27. |
| 20000. | 1480. | 104. | 0. | -5.6 | | -31.1 | 260. | 32. | 38. | 84. | 29. |
| 25000. | 1372. | 139. | 0. | -8.4 | | -39.9 | 258. | 41. | 48. | 85. | 36. |
| 30000. | 1266. | 156. | 0. | -9.7 | | -47.1 | 258. | 48. | 56. | 87. | 41. |
| 35000. | 1015. | 175. | 0. | -9.5 | | -52.1 | 260. | 53. | 60. | 88. | 42. |
| 40000. | 844. | 155. | 0. | -9.6 | | -53.7 | 260. | 55. | 60. | 90. | 39. |
| 45000. | 766. | 146. | 0. | -9.5 | | -49.9 | 259. | 51. | 54. | 94. | 30. |
| 50000. | 670. | 106. | 0. | -7.7 | | -42.5 | 260. | 43. | 46. | 94. | 24. |
| 55000. | 553. | 93. | 0. | -5.8 | | -31.7 | 260. | 32. | 35. | 92. | 22. |
| 60000. | 499. | 82. | 0. | -3.8 | | -15.7 | 256. | 16. | 20. | 82. | 17. |
| 65000. | 452. | 57. | 0. | -1.6 | | -6.7 | 257. | 7. | 13. | 55. | 14. |
| 70000. | 418. | 60. | 0. | -0.7 | | -1.1 | 238. | 1. | 10. | 13. | 13. |
| 75000. | 390. | 55. | 1. | -0.8 | | .3 | 156. | 1. | 11. | 8. | 14. |
| 80000. | 359. | 57. | 1. | -1.0 | | .9 | 136. | 1. | 13. | 11. | 15. |
| 85000. | 339. | 61. | 0. | -1.0 | | -0.2 | 189. | 1. | 13. | 8. | 16. |
| 90000. | 316. | 75. | 0. | -1.4 | | -4.4 | 247. | 5. | 15. | 31. | 18. |
| 95000. | 280. | 86. | 0. | -2.1 | | -8.0 | 255. | 8. | 18. | 45. | 20. |
| 100000. | 211. | 88. | 0. | -1.9 | | -12.3 | 261. | 12. | 21. | 58. | 23. |

TABLE V (CONT)
 UPPER AIR WIND DATA AT SELECTED LEVELS BY SEASONS
 STATION SITE
 PERIOD OF RECORD 1961-1973

SUMMER

| GEO. ALTITUDE MSL FEET | TOTAL OBS | MAXIMUM SPEED (KNOTS) | MINIMUM SPEED (KNOTS) | RESULTANT WIND COMPONENTS (KNOTS) | | RESULTANT WIND DIRECTION (DEGREES) | WIND SPEED (KNOTS) | SCALAR MEAN SPEED (KNOTS) | CONSTANCY (PERCENT) | STANDARD VECTOR DEVIATION (KNOTS) |
|---------------------------|--------------|-----------------------------|-----------------------------|--------------------------------------|-------|--|--------------------------|------------------------------------|------------------------|--|
| | | | | +N | -S | | | | | |
| 4940. | 1090. | 67. | 0. | -0.4 | .2 | 153. | 0. | 5. | 9. | 7. |
| 5000. | 1162. | 66. | 0. | -0.5 | .2 | 157. | 1. | 5. | 10. | 7. |
| 6000. | 1163. | 47. | 0. | -1.1 | .4 | 199. | 1. | 7. | 17. | 8. |
| 7000. | 1163. | 36. | 0. | -2.7 | -1.6 | 211. | 3. | 6. | 38. | 9. |
| 8000. | 1164. | 34. | 0. | -3.0 | -2.5 | 220. | 4. | 9. | 43. | 10. |
| 9000. | 1168. | 36. | 0. | -2.5 | -2.7 | 227. | 4. | 9. | 39. | 10. |
| 10000. | 1172. | 40. | 0. | -2.0 | -2.8 | 234. | 3. | 10. | 35. | 11. |
| 11000. | 1175. | 44. | 1. | -1.7 | -2.7 | 239. | 3. | 11. | 31. | 12. |
| 12000. | 1178. | 50. | 0. | -1.6 | -2.7 | 240. | 3. | 11. | 28. | 13. |
| 13000. | 1177. | 51. | 0. | -1.6 | -2.6 | 237. | 3. | 12. | 25. | 14. |
| 14000. | 1176. | 48. | 1. | -1.8 | -2.5 | 235. | 3. | 13. | 23. | 15. |
| 15000. | 1173. | 50. | 0. | -2.0 | -2.5 | 231. | 3. | 14. | 24. | 16. |
| 16000. | 1170. | 50. | 0. | -2.2 | -2.8 | 231. | 4. | 14. | 24. | 17. |
| 18000. | 1161. | 61. | 0. | -2.3 | -3.6 | 237. | 4. | 15. | 28. | 18. |
| 20000. | 1147. | 67. | 0. | -2.5 | -4.8 | 243. | 5. | 15. | 35. | 18. |
| 25000. | 1071. | 64. | 0. | -2.7 | -7.4 | 250. | 8. | 18. | 44. | 20. |
| 30000. | 1013. | 79. | 0. | -3.0 | -10.2 | 254. | 11. | 22. | 48. | 24. |
| 35000. | 881. | 96. | 0. | -2.0 | -13.0 | 261. | 13. | 26. | 50. | 28. |
| 40000. | 760. | 102. | 0. | -0.9 | -15.5 | 267. | 16. | 29. | 53. | 31. |
| 45000. | 681. | 85. | 0. | -0.6 | -14.7 | 268. | 15. | 27. | 54. | 28. |
| 50000. | 634. | 79. | 0. | -1.3 | -8.1 | 261. | 8. | 19. | 43. | 22. |
| 55000. | 557. | 46. | 1. | -2.2 | .2 | 175. | 2. | 12. | 18. | 14. |
| 60000. | 521. | 45. | 0. | -1.9 | 8.9 | 102. | 9. | 12. | 73. | 10. |
| 65000. | 481. | 47. | 0. | -1.2 | 15.2 | 95. | 15. | 16. | 94. | 9. |
| 70000. | 456. | 38. | 0. | -1.4 | 18.7 | 94. | 19. | 19. | 97. | 8. |
| 75000. | 435. | 42. | 0. | -0.6 | 22.2 | 92. | 22. | 23. | 96. | 8. |
| 80000. | 420. | 47. | 6. | -1.3 | 25.1 | 93. | 25. | 26. | 98. | 8. |
| 85000. | 401. | 51. | 4. | -0.5 | 27.4 | 91. | 27. | 28. | 99. | 9. |
| 90000. | 371. | 56. | 4. | -0.9 | 29.7 | 92. | 30. | 30. | 98. | 11. |
| 95000. | 339. | 57. | 0. | -1.0 | 32.0 | 92. | 32. | 33. | 98. | 11. |
| 100000. | 296. | 61. | 0. | -2.2 | 33.7 | 94. | 34. | 34. | 98. | 12. |

TABLE V (CONT)
UPPER AIR WIND DATA AT SELECTED LEVELS BY SEASONS
STATION: SITE
PERIOD OF RECORD 1961-1973

FALL

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | MAXIMUM SPEED (KNOTS) | MINIMUM SPEED (KNOTS) | RESULTANT WIND COMPONENTS (KNOTS) | | | RESULTANT DIRECTION, (DEGREES) | WIND SPEED (KNOTS) | SCALAR MEAN SPEED (KNOTS) | CONSTANCY (PERCENT) | STANDARD VECTOR DEVIATION (KNOTS) |
|-----------------------------------|--------------|-----------------------------|-----------------------------|--------------------------------------|----|-------|--------------------------------------|--------------------------|------------------------------------|------------------------|--|
| | | | | +U | -S | +E | -W | | | | |
| 4940. | 1039. | 56. | 0. | .5 | | .1 | 13. | 1. | 5. | 10. | 7. |
| 5000. | 1187. | 55. | 0. | .5 | | -.0 | 357. | 1. | 5. | 10. | 7. |
| 6000. | 1185. | 41. | 0. | .3 | | -1.0 | 284. | 1. | 8. | 13. | 9. |
| 7000. | 1187. | 68. | 0. | -1.2 | | -3.2 | 249. | 3. | 10. | 33. | 12. |
| 8000. | 1188. | 67. | 1. | -1.4 | | -5.1 | 254. | 5. | 12. | 43. | 14. |
| 9000. | 1190. | 64. | 0. | -1.1 | | -6.6 | 261. | 7. | 14. | 49. | 14. |
| 10000. | 1190. | 71. | 0. | -.7 | | -8.1 | 265. | 8. | 15. | 54. | 15. |
| 11000. | 1190. | 74. | 0. | -.4 | | -9.6 | 268. | 10. | 17. | 58. | 16. |
| 12000. | 1187. | 80. | 0. | -.1 | | -11.0 | 269. | 11. | 18. | 61. | 18. |
| 13000. | 1187. | 82. | 0. | -.1 | | -12.3 | 270. | 12. | 20. | 63. | 19. |
| 14000. | 1187. | 84. | 0. | .1 | | -13.2 | 270. | 13. | 21. | 64. | 21. |
| 15000. | 1183. | 85. | 0. | .2 | | -14.2 | 271. | 14. | 22. | 65. | 22. |
| 16000. | 1183. | 86. | 0. | .2 | | -15.1 | 271. | 15. | 23. | 65. | 23. |
| 18000. | 1179. | 109. | 0. | .5 | | -17.1 | 272. | 17. | 26. | 66. | 25. |
| 20000. | 1162. | 121. | 0. | .3 | | -19.0 | 271. | 19. | 28. | 67. | 28. |
| 25000. | 1080. | 122. | 0. | -.4 | | -24.1 | 269. | 24. | 34. | 70. | 33. |
| 30000. | 1012. | 144. | 0. | -1.4 | | -30.3 | 267. | 30. | 42. | 72. | 39. |
| 35000. | 887. | 137. | 0. | -2.2 | | -37.1 | 267. | 37. | 48. | 77. | 41. |
| 40000. | 776. | 139. | 0. | -2.6 | | -44.0 | 267. | 44. | 53. | 83. | 39. |
| 45000. | 700. | 134. | 2. | -2.5 | | -43.1 | 267. | 43. | 49. | 87. | 33. |
| 50000. | 661. | 90. | 0. | -2.0 | | -33.2 | 267. | 33. | 38. | 88. | 25. |
| 55000. | 582. | 86. | 0. | -.9 | | -21.4 | 268. | 21. | 25. | 84. | 21. |
| 60000. | 550. | 86. | 0. | -.3 | | -8.9 | 268. | 9. | 15. | 59. | 17. |
| 65000. | 525. | 86. | 0. | -.4 | | -4.1 | 264. | 4. | 12. | 34. | 15. |
| 70000. | 503. | 48. | 0. | .5 | | -1.0 | 297. | 1. | 12. | 10. | 14. |
| 75000. | 478. | 59. | 0. | .3 | | .6 | 65. | 1. | 13. | 5. | 16. |
| 80000. | 457. | 62. | 0. | .4 | | -.7 | 301. | 1. | 15. | 5. | 18. |
| 85000. | 431. | 78. | 0. | .2 | | -2.4 | 276. | 2. | 17. | 15. | 20. |
| 90000. | 396. | 86. | 0. | -.5 | | -5.7 | 265. | 6. | 20. | 29. | 24. |
| 95000. | 343. | 117. | 0. | -.7 | | -8.5 | 265. | 9. | 22. | 39. | 27. |
| 100000. | 290. | 121. | 0. | -1.7 | | -9.6 | 260. | 10. | 25. | 39. | 30. |

TABLE VI

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973

WINTER

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | WIND DIRECTIONS (DEGREES) | | | | | | | | | | | | CALM | |
|----------------------------------|--------------|---------------------------|-----------|-----------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | | <360 >30 | 30 -60 | 60 -90 | 90 -120 | 120 -150 | 150 -180 | 180 -210 | 210 -240 | 240 -270 | 270 -300 | 300 -330 | 330 -360 | >360 -30 | >360 -30 |
| 4940. | 1075. | 14. | 6. | 2. | 1. | 1. | 3. | 9. | 6. | 3. | 3. | 7. | 14. | 31. | 31. |
| 5000. | 1269. | 14. | 5. | 3. | 1. | 1. | 3. | 10. | 6. | 2. | 7. | 7. | 16. | 27. | 27. |
| 6000. | 1269. | 10. | 5. | 4. | 6. | 2. | 2. | 8. | 10. | 7. | 15. | 15. | 25. | 0. | 0. |
| 7000. | 1269. | 6. | 4. | 2. | 1. | 1. | 5. | 6. | 15. | 10. | 17. | 17. | 19. | 0. | 0. |
| 8000. | 1265. | 5. | 4. | 2. | 1. | 1. | 2. | 8. | 17. | 13. | 11. | 21. | 14. | 0. | 0. |
| 9000. | 1274. | 4. | 4. | 2. | 1. | 1. | 2. | 5. | 15. | 18. | 15. | 21. | 12. | 0. | 0. |
| 10000. | 1277. | 4. | 3. | 2. | 1. | 1. | 3. | 3. | 11. | 20. | 19. | 21. | 12. | 0. | 0. |
| 11000. | 1278. | 5. | 3. | 2. | 1. | 1. | 2. | 3. | 11. | 19. | 22. | 20. | 12. | 0. | 0. |
| 12000. | 1279. | 4. | 3. | 2. | 1. | 1. | 1. | 3. | 10. | 19. | 24. | 20. | 12. | 0. | 0. |
| 13000. | 1279. | 4. | 2. | 2. | 1. | 1. | 1. | 2. | 10. | 20. | 25. | 19. | 12. | 0. | 0. |
| 14000. | 1277. | 4. | 2. | 1. | 1. | 1. | 1. | 2. | 10. | 20. | 26. | 18. | 12. | 0. | 0. |
| 15000. | 1272. | 4. | 3. | 1. | 1. | 1. | 1. | 3. | 9. | 22. | 26. | 18. | 11. | 0. | 0. |
| 16000. | 1271. | 4. | 3. | 1. | 1. | 1. | 0. | 3. | 10. | 23. | 26. | 18. | 11. | 0. | 0. |
| 18000. | 1261. | 5. | 3. | 1. | 1. | 0. | 0. | 2. | 11. | 23. | 26. | 17. | 10. | 0. | 0. |
| 20000. | 1226. | 4. | 3. | 1. | 1. | 0. | 0. | 2. | 11. | 25. | 25. | 17. | 11. | 0. | 0. |
| 25000. | 1132. | 4. | 2. | 1. | 1. | 0. | 0. | 2. | 11. | 24. | 24. | 18. | 11. | 0. | 0. |
| 30000. | 1032. | 4. | 2. | 1. | 1. | 0. | 1. | 2. | 10. | 30. | 24. | 17. | 8. | 0. | 0. |
| 35000. | 904. | 4. | 2. | 2. | 1. | 0. | 0. | 1. | 12. | 30. | 25. | 16. | 7. | 2. | 2. |
| 40000. | 813. | 1. | 1. | 1. | 0. | 0. | 0. | 0. | 10. | 34. | 34. | 14. | 5. | 0. | 0. |
| 45000. | 722. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 8. | 38. | 36. | 13. | 4. | 0. | 0. |
| 50000. | 628. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 7. | 38. | 37. | 13. | 3. | 0. | 0. |
| 55000. | 523. | 1. | 0. | 0. | 0. | 0. | 0. | 1. | 5. | 41. | 37. | 12. | 3. | 0. | 0. |
| 60000. | 489. | 2. | 1. | 1. | 0. | 0. | 1. | 2. | 8. | 32. | 32. | 16. | 6. | 0. | 0. |
| 65000. | 456. | 4. | 4. | 2. | 1. | 0. | 1. | 2. | 7. | 24. | 30. | 15. | 9. | 1. | 1. |
| 70000. | 414. | 7. | 6. | 8. | 4. | 1. | 2. | 2. | 8. | 16. | 25. | 11. | 9. | 0. | 0. |
| 75000. | 396. | 8. | 9. | 12. | 5. | 2. | 2. | 3. | 4. | 21. | 21. | 9. | 8. | 0. | 0. |
| 80000. | 365. | 6. | 11. | 16. | 5. | 2. | 1. | 1. | 4. | 22. | 22. | 9. | 4. | 0. | 0. |
| 85000. | 348. | 4. | 10. | 16. | 6. | 3. | 1. | 2. | 4. | 25. | 25. | 5. | 4. | 0. | 0. |
| 90000. | 322. | 3. | 9. | 15. | 6. | 2. | 1. | 2. | 6. | 23. | 23. | 7. | 3. | 0. | 0. |
| 95000. | 304. | 4. | 4. | 15. | 7. | 1. | 2. | 0. | 2. | 24. | 24. | 4. | 5. | 0. | 0. |
| 100000. | 239. | 3. | 5. | 14. | 5. | 2. | 0. | 2. | 4. | 21. | 21. | 2. | 4. | 1. | 1. |

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 TABLE VI (CONT)
 STATION SITE
 PERIOD OF RECORD 1961-1973

SPRING

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | WIND DIRECTIONS (DEGREES) | | | | | | | | | | CALM | | |
|----------------------------------|--------------|---------------------------|---------------|---------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----|
| | | 360 - 30 | 30 - 60 | 60 - 90 | 90 - 120 | 120 - 150 | 150 - 180 | 180 - 210 | 210 - 240 | 240 - 270 | 270 - 300 | 300 - 330 | 330 - 360 | |
| 4940. | 1302. | 11. | 7. | 4. | 2. | 2. | 7. | 16. | 11. | 7. | 4. | 4. | 8. | 17. |
| 5000. | 1552. | 10. | 6. | 4. | 2. | 2. | 7. | 17. | 12. | 7. | 3. | 4. | 11. | 14. |
| 6000. | 1553. | 7. | 4. | 5. | 4. | 3. | 5. | 19. | 15. | 7. | 6. | 10. | 14. | 0. |
| 7000. | 1553. | 4. | 3. | 3. | 2. | 3. | 6. | 20. | 19. | 10. | 8. | 10. | 12. | 0. |
| 8000. | 1552. | 3. | 3. | 2. | 2. | 2. | 6. | 18. | 22. | 13. | 8. | 12. | 10. | 0. |
| 9000. | 1555. | 2. | 2. | 2. | 1. | 2. | 5. | 15. | 24. | 16. | 11. | 12. | 8. | 0. |
| 10000. | 1555. | 2. | 2. | 1. | 1. | 1. | 4. | 12. | 25. | 20. | 13. | 13. | 7. | 0. |
| 11000. | 1549. | 3. | 2. | 1. | 1. | 1. | 3. | 10. | 23. | 22. | 17. | 13. | 5. | 0. |
| 12000. | 1543. | 3. | 1. | 1. | 1. | 1. | 3. | 8. | 22. | 25. | 19. | 13. | 4. | 0. |
| 13000. | 1546. | 2. | 1. | 1. | 1. | 1. | 2. | 7. | 21. | 28. | 20. | 11. | 4. | 0. |
| 14000. | 1543. | 2. | 1. | 0. | 1. | 1. | 2. | 7. | 20. | 31. | 20. | 10. | 4. | 0. |
| 15000. | 1539. | 2. | 1. | 1. | 1. | 1. | 1. | 6. | 19. | 33. | 20. | 10. | 4. | 0. |
| 16000. | 1537. | 2. | 1. | 1. | 1. | 0. | 1. | 6. | 17. | 35. | 22. | 9. | 4. | 0. |
| 18000. | 1525. | 2. | 1. | 1. | 0. | 0. | 1. | 4. | 17. | 37. | 22. | 9. | 5. | 0. |
| 20000. | 1480. | 2. | 1. | 1. | 0. | 0. | 1. | 3. | 16. | 40. | 21. | 10. | 4. | 0. |
| 25000. | 1372. | 1. | 1. | 1. | 0. | 0. | 1. | 3. | 17. | 43. | 21. | 9. | 5. | 0. |
| 30000. | 1266. | 2. | 1. | 1. | 0. | 0. | 1. | 2. | 16. | 43. | 21. | 8. | 4. | 0. |
| 35000. | 1015. | 1. | 0. | 1. | 0. | 0. | 1. | 2. | 15. | 46. | 21. | 8. | 3. | 1. |
| 40000. | 844. | 1. | 0. | 1. | 0. | 0. | 0. | 2. | 13. | 50. | 22. | 6. | 3. | 2. |
| 45000. | 766. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 12. | 54. | 25. | 1. | 1. | 1. |
| 50000. | 670. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 13. | 54. | 26. | 1. | 1. | 0. |
| 55000. | 553. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 15. | 47. | 29. | 5. | 1. | 0. |
| 60000. | 499. | 1. | 1. | 1. | 1. | 2. | 3. | 7. | 16. | 33. | 24. | 6. | 3. | 0. |
| 65000. | 452. | 3. | 4. | 6. | 6. | 5. | 4. | 6. | 15. | 23. | 14. | 10. | 3. | 1. |
| 70000. | 418. | 5. | 9. | 13. | 12. | 6. | 8. | 5. | 8. | 13. | 11. | 8. | 3. | 1. |
| 75000. | 390. | 5. | 8. | 16. | 16. | 7. | 6. | 5. | 5. | 15. | 9. | 5. | 4. | 0. |
| 80000. | 359. | 4. | 6. | 19. | 16. | 16. | 7. | 5. | 8. | 16. | 7. | 5. | 3. | 0. |
| 85000. | 339. | 4. | 6. | 16. | 16. | 16. | 4. | 7. | 9. | 18. | 10. | 4. | 3. | 1. |
| 90000. | 316. | 2. | 4. | 13. | 10. | 10. | 4. | 4. | 11. | 25. | 16. | 4. | 3. | 0. |
| 95000. | 280. | 2. | 4. | 11. | 10. | 10. | 3. | 4. | 9. | 34. | 14. | 4. | 1. | 0. |
| 100000. | 211. | 2. | 2. | 7. | 11. | 11. | 4. | 0. | 9. | 29. | 23. | 5. | 2. | 2. |

TABLE VI (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND PIPECTIONS AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973
SUMMER

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | WIND DIRECTIONS (DEGREES) | | | | | | | | | | | | CALM, |
|----------------------------------|--------------|---------------------------|-------------|-------------|-------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| | | ≥ 360 - 30 | 230 - 60 | 160 - 90 | 90 - 120 | 2120 - 150 | 150 - 180 | 180 - 210 | 210 - 240 | 240 - 270 | 270 - 300 | 300 - 330 | 330 - 360 | |
| 4940. | 1090. | 12. | 10. | 4. | 4. | 7. | 15. | 9. | 4. | 2. | 2. | 6. | 21. | |
| 5000. | 1162. | 10. | 9. | 4. | 4. | 8. | 15. | 9. | 4. | 2. | 3. | 9. | 20. | |
| 6000. | 1163. | 8. | 7. | 8. | 5. | 7. | 18. | 9. | 5. | 7. | 6. | 10. | 1. | |
| 7000. | 1163. | 5. | 4. | 5. | 5. | 11. | 21. | 16. | 7. | 5. | 6. | 8. | 1. | |
| 8000. | 1164. | 5. | 4. | 5. | 5. | 11. | 20. | 18. | 8. | 7. | 6. | 6. | 0. | |
| 9000. | 1168. | 6. | 4. | 5. | 5. | 9. | 17. | 19. | 9. | 7. | 9. | 7. | 0. | |
| 10000. | 1172. | 7. | 4. | 5. | 5. | 7. | 14. | 17. | 10. | 8. | 10. | 6. | 0. | |
| 11000. | 1175. | 6. | 5. | 5. | 5. | 8. | 11. | 14. | 13. | 8. | 10. | 8. | 0. | |
| 12000. | 1178. | 6. | 6. | 6. | 6. | 6. | 10. | 15. | 11. | 9. | 9. | 8. | 0. | |
| 13000. | 1177. | 7. | 6. | 7. | 7. | 5. | 10. | 14. | 11. | 8. | 9. | 8. | 0. | |
| 14000. | 1176. | 8. | 6. | 8. | 8. | 5. | 9. | 15. | 11. | 7. | 8. | 7. | 0. | |
| 15000. | 1173. | 8. | 7. | 10. | 8. | 5. | 8. | 15. | 12. | 7. | 7. | 7. | 0. | |
| 16000. | 1170. | 7. | 7. | 11. | 7. | 6. | 9. | 15. | 11. | 7. | 6. | 7. | 0. | |
| 18000. | 1161. | 6. | 8. | 10. | 7. | 6. | 9. | 16. | 11. | 8. | 7. | 7. | 0. | |
| 20000. | 1147. | 6. | 7. | 10. | 5. | 6. | 9. | 15. | 14. | 8. | 8. | 6. | 0. | |
| 25000. | 1071. | 6. | 8. | 5. | 5. | 6. | 9. | 16. | 17. | 10. | 7. | 7. | 0. | |
| 30000. | 1013. | 7. | 6. | 4. | 4. | 4. | 10. | 14. | 19. | 11. | 8. | 7. | 0. | |
| 35000. | 881. | 6. | 5. | 5. | 3. | 3. | 8. | 13. | 21. | 9. | 9. | 9. | 1. | |
| 40000. | 760. | 6. | 5. | 4. | 4. | 4. | 6. | 10. | 23. | 10. | 10. | 12. | 1. | |
| 45000. | 681. | 7. | 6. | 3. | 4. | 4. | 7. | 11. | 21. | 9. | 9. | 11. | 0. | |
| 50000. | 634. | 7. | 7. | 6. | 6. | 6. | 6. | 13. | 17. | 11. | 8. | 7. | 0. | |
| 55000. | 557. | 6. | 8. | 5. | 15. | 8. | 8. | 9. | 11. | 6. | 5. | 3. | 0. | |
| 60000. | 521. | 2. | 8. | 24. | 31. | 8. | 5. | 3. | 1. | 1. | 2. | 1. | 1. | |
| 65000. | 481. | 1. | 3. | 35. | 49. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 70000. | 456. | 0. | 1. | 34. | 59. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 75000. | 435. | 0. | 0. | 39. | 57. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 80000. | 420. | 0. | 0. | 36. | 61. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 85000. | 401. | 0. | 0. | 43. | 56. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 90000. | 371. | 0. | 0. | 43. | 55. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 95000. | 339. | 0. | 0. | 37. | 59. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | |
| 100000. | 296. | 0. | 1. | 29. | 67. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | |

TABLE VI (CONT)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR WIND DIRECTIONS AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973

FALL

| GEOMETRIC ALTITUDE MSL FT. | TOTAL ORS | WIND DIRECTIONS (DEGREES) | | | | | | | | | | | | CALM, | |
|----------------------------------|--------------|---------------------------|-----------|-----------|------------|------------|------------|------------|------------|------------|-----------|-----------|-----------|-------|-----|
| | | 360 30 | 330 60 | 300 90 | 270 120 | 240 150 | 210 180 | 180 210 | 150 240 | 120 270 | 90 300 | 60 330 | 30 360 | 330 | 360 |
| 4940. | 1039. | 13. | 10. | 5. | 2. | 2. | 5. | 12. | 8. | 4. | 2. | 2. | 8. | 2. | 25. |
| 5000. | 1187. | 14. | 8. | 5. | 2. | 2. | 5. | 12. | 9. | 4. | 2. | 2. | 13. | 3. | 22. |
| 6000. | 1185. | 8. | 6. | 8. | 6. | 3. | 5. | 13. | 11. | 4. | 7. | 9. | 18. | 9. | 1. |
| 7000. | 1187. | 5. | 4. | 4. | 2. | 3. | 7. | 17. | 18. | 9. | 6. | 10. | 14. | 10. | 0. |
| 8000. | 1188. | 5. | 4. | 3. | 2. | 2. | 5. | 15. | 20. | 12. | 8. | 12. | 11. | 12. | 0. |
| 9000. | 1190. | 4. | 4. | 3. | 2. | 2. | 4. | 13. | 19. | 14. | 11. | 14. | 11. | 14. | 0. |
| 10000. | 1190. | 4. | 4. | 3. | 2. | 2. | 4. | 10. | 19. | 15. | 13. | 15. | 9. | 15. | 0. |
| 11000. | 1190. | 5. | 3. | 2. | 1. | 3. | 4. | 8. | 17. | 20. | 14. | 14. | 9. | 14. | 0. |
| 12000. | 1187. | 4. | 4. | 2. | 2. | 3. | 3. | 7. | 15. | 21. | 16. | 15. | 8. | 15. | 0. |
| 13000. | 1187. | 4. | 3. | 2. | 2. | 3. | 3. | 6. | 15. | 22. | 18. | 13. | 9. | 13. | 0. |
| 14000. | 1187. | 5. | 3. | 2. | 2. | 3. | 2. | 6. | 16. | 22. | 17. | 13. | 11. | 13. | 0. |
| 15000. | 1183. | 5. | 2. | 2. | 2. | 2. | 2. | 5. | 16. | 22. | 18. | 11. | 12. | 11. | 0. |
| 16000. | 1183. | 5. | 3. | 2. | 3. | 2. | 2. | 5. | 15. | 24. | 17. | 11. | 11. | 11. | 0. |
| 18000. | 1179. | 6. | 2. | 1. | 1. | 2. | 2. | 4. | 16. | 24. | 17. | 11. | 11. | 11. | 0. |
| 20000. | 1162. | 7. | 2. | 1. | 1. | 1. | 2. | 6. | 16. | 25. | 18. | 12. | 9. | 12. | 0. |
| 25000. | 1080. | 6. | 2. | 1. | 1. | 1. | 1. | 6. | 16. | 25. | 19. | 13. | 8. | 13. | 0. |
| 30000. | 1012. | 5. | 2. | 1. | 1. | 1. | 1. | 5. | 17. | 26. | 21. | 12. | 7. | 12. | 1. |
| 35000. | 887. | 5. | 2. | 1. | 0. | 0. | 1. | 3. | 13. | 32. | 25. | 9. | 5. | 9. | 4. |
| 40000. | 776. | 3. | 1. | 1. | 0. | 0. | 0. | 2. | 12. | 37. | 27. | 10. | 5. | 10. | 2. |
| 45000. | 700. | 3. | 0. | 0. | 0. | 0. | 0. | 2. | 11. | 40. | 33. | 8. | 3. | 8. | 0. |
| 50000. | 661. | 2. | 1. | 0. | 0. | 0. | 0. | 2. | 10. | 40. | 31. | 9. | 3. | 9. | 1. |
| 55000. | 582. | 2. | 1. | 0. | 1. | 1. | 0. | 5. | 13. | 32. | 29. | 11. | 5. | 11. | 1. |
| 60000. | 550. | 5. | 3. | 5. | 4. | 3. | 5. | 5. | 12. | 19. | 18. | 12. | 8. | 12. | 0. |
| 65000. | 525. | 5. | 6. | 7. | 11. | 6. | 4. | 5. | 10. | 15. | 15. | 7. | 8. | 7. | 0. |
| 70000. | 503. | 5. | 6. | 17. | 11. | 8. | 2. | 4. | 7. | 11. | 14. | 9. | 5. | 9. | 0. |
| 75000. | 478. | 5. | 5. | 20. | 16. | 6. | 2. | 4. | 5. | 13. | 13. | 6. | 4. | 6. | 0. |
| 80000. | 457. | 3. | 6. | 19. | 18. | 6. | 2. | 1. | 4. | 17. | 12. | 5. | 5. | 5. | 1. |
| 85000. | 431. | 4. | 6. | 17. | 17. | 5. | 2. | 2. | 4. | 16. | 16. | 8. | 3. | 8. | 1. |
| 90000. | 396. | 2. | 4. | 16. | 17. | 4. | 3. | 3. | 2. | 23. | 15. | 6. | 3. | 6. | 1. |
| 95000. | 343. | 3. | 4. | 16. | 16. | 3. | 2. | 2. | 5. | 21. | 20. | 3. | 4. | 3. | 2. |
| 100000. | 290. | 2. | 1. | 14. | 17. | 6. | 2. | 4. | 3. | 23. | 19. | 3. | 2. | 3. | 3. |

TABLE VII

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973

WINTER

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | CALM | WIND SPEED (KNOTS) | | | | | | | | | | | | | | | | >100 125 | >125 150 | >150 | | | | | |
|----------------------------------|--------------|------|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|---------|---------|---------|---------|---------|-------------|-------------|------|----|----|----|----|----|
| | | | <10 | 10-19 | 20-29 | 30-39 | 40-49 | 50-59 | 60-69 | 70-79 | 80-89 | 90-99 | 100-109 | 110-119 | 120-129 | 130-139 | 140-149 | 150-159 | | | | | | | | |
| 4940. | 1075. | 31. | 52. | 16. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 5000. | 1269. | 27. | 55. | 18. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 6000. | 1269. | 0. | 63. | 32. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 7000. | 1269. | 0. | 39. | 47. | 12. | 2. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 8000. | 1265. | 0. | 26. | 49. | 19. | 4. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 9000. | 1274. | 0. | 18. | 48. | 25. | 7. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 10000. | 1277. | 0. | 13. | 41. | 31. | 11. | 0. | 3. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 11000. | 1278. | 0. | 11. | 33. | 34. | 15. | 0. | 5. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 12000. | 1279. | 0. | 10. | 27. | 31. | 21. | 0. | 7. | 3. | 1. | 0. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 13000. | 1279. | 0. | 9. | 23. | 31. | 21. | 0. | 11. | 3. | 2. | 0. | 0. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 1277. | 0. | 8. | 20. | 29. | 23. | 0. | 11. | 5. | 7. | 0. | 0. | 2. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 1272. | 0. | 7. | 18. | 27. | 23. | 0. | 13. | 7. | 7. | 0. | 0. | 5. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 16000. | 1271. | 0. | 7. | 15. | 25. | 23. | 0. | 14. | 7. | 6. | 0. | 0. | 6. | 0. | 2. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 18000. | 1261. | 0. | 5. | 13. | 22. | 23. | 0. | 15. | 10. | 6. | 0. | 0. | 6. | 0. | 4. | 0. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 20000. | 1226. | 0. | 4. | 13. | 18. | 21. | 0. | 16. | 11. | 9. | 0. | 0. | 9. | 0. | 5. | 0. | 2. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 25000. | 1132. | 0. | 2. | 8. | 15. | 16. | 0. | 13. | 13. | 13. | 0. | 0. | 11. | 0. | 6. | 0. | 6. | 0. | 3. | 0. | 4. | 0. | 0. | 0. | 0. | 0. |
| 30000. | 1032. | 0. | 3. | 6. | 12. | 12. | 0. | 12. | 11. | 11. | 0. | 0. | 12. | 0. | 8. | 0. | 8. | 0. | 6. | 0. | 7. | 0. | 2. | 0. | 0. | 0. |
| 35000. | 904. | 2. | 2. | 4. | 9. | 9. | 0. | 13. | 10. | 10. | 0. | 0. | 11. | 0. | 10. | 0. | 9. | 0. | 6. | 0. | 11. | 0. | 4. | 1. | 0. | 0. |
| 40000. | 813. | 0. | 1. | 3. | 6. | 9. | 0. | 11. | 12. | 13. | 0. | 0. | 13. | 0. | 14. | 0. | 8. | 0. | 9. | 0. | 9. | 3. | 3. | 1. | 0. | 0. |
| 45000. | 722. | 0. | 1. | 3. | 3. | 12. | 0. | 14. | 17. | 15. | 0. | 0. | 15. | 0. | 14. | 0. | 11. | 0. | 6. | 0. | 4. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 628. | 0. | 1. | 4. | 8. | 14. | 0. | 18. | 19. | 17. | 0. | 0. | 17. | 0. | 11. | 0. | 4. | 0. | 2. | 0. | 1. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 523. | 0. | 2. | 7. | 16. | 19. | 0. | 24. | 15. | 11. | 0. | 0. | 11. | 0. | 6. | 0. | 1. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 489. | 0. | 8. | 25. | 28. | 22. | 0. | 8. | 6. | 3. | 0. | 0. | 3. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 456. | 1. | 22. | 38. | 23. | 9. | 0. | 5. | 1. | 1. | 0. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 414. | 0. | 33. | 38. | 19. | 7. | 0. | 4. | 0. | 0. | 0. | 0. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 396. | 0. | 34. | 38. | 17. | 6. | 0. | 3. | 1. | 1. | 0. | 0. | 3. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 365. | 0. | 26. | 38. | 19. | 10. | 0. | 4. | 2. | 1. | 0. | 0. | 4. | 0. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 348. | 0. | 24. | 30. | 19. | 14. | 0. | 7. | 4. | 1. | 0. | 0. | 7. | 0. | 1. | 0. | 0. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 322. | 0. | 17. | 30. | 17. | 15. | 0. | 8. | 4. | 4. | 0. | 0. | 8. | 0. | 4. | 0. | 1. | 0. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 95000. | 304. | 0. | 11. | 26. | 19. | 13. | 0. | 11. | 7. | 3. | 0. | 0. | 11. | 0. | 7. | 0. | 4. | 0. | 2. | 0. | 1. | 0. | 0. | 0. | 0. | 0. |
| 100000. | 239. | 1. | 8. | 19. | 16. | 19. | 0. | 8. | 8. | 7. | 0. | 0. | 8. | 0. | 3. | 0. | 3. | 0. | 3. | 0. | 4. | 0. | 1. | 0. | 0. | 0. |

TABLE VII (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973

SPRING

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | CALM | 1 10 | 10 | | 20 | | 30 | | 40 | | 50 | | 60 | | 70 | | 80 | | 90 | | 100 | | 125 | | 150 | |
|----------------------------------|--------------|------|---------|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|-----|----|-----|----|-----|----|
| | | | | 20 | 27. | 30 | 4. | 40 | 0. | 50 | 0. | 60 | 0. | 70 | 0. | 80 | 0. | 90 | 0. | 100 | 0. | 125 | 0. | 150 | 0. | 150 | 0. |
| 4940. | 1302. | 17. | 53. | 27. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 5000. | 1552. | 14. | 54. | 28. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 6000. | 1553. | 0. | 55. | 36. | 8. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 7000. | 1553. | 0. | 42. | 42. | 13. | 3. | 13. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 8000. | 1552. | 0. | 34. | 45. | 17. | 4. | 17. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 9000. | 1555. | 0. | 28. | 46. | 20. | 5. | 20. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 10000. | 1555. | 0. | 23. | 43. | 24. | 8. | 24. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 11000. | 1549. | 0. | 19. | 40. | 25. | 12. | 25. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 12000. | 1548. | 0. | 16. | 35. | 29. | 13. | 29. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 13000. | 1546. | 0. | 13. | 30. | 29. | 17. | 29. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 1543. | 0. | 11. | 26. | 29. | 17. | 29. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 1539. | 0. | 9. | 22. | 30. | 17. | 30. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 16000. | 1537. | 0. | 9. | 19. | 28. | 20. | 28. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 18000. | 1525. | 0. | 7. | 16. | 24. | 20. | 24. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 20000. | 1480. | 0. | 5. | 15. | 19. | 20. | 19. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 25000. | 1372. | 0. | 3. | 12. | 13. | 15. | 13. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 30000. | 1266. | 1. | 2. | 9. | 11. | 12. | 11. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 35000. | 1015. | 2. | 1. | 6. | 9. | 10. | 9. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 40000. | 844. | 2. | 0. | 4. | 9. | 10. | 9. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 45000. | 766. | 1. | 1. | 4. | 13. | 12. | 13. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 670. | 0. | 1. | 5. | 13. | 19. | 13. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 553. | 0. | 3. | 16. | 24. | 22. | 24. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 499. | 1. | 22. | 36. | 23. | 11. | 23. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 452. | 1. | 45. | 35. | 14. | 4. | 14. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 418. | 0. | 58. | 33. | 6. | 1. | 6. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 390. | 0. | 51. | 39. | 7. | 1. | 7. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 359. | 0. | 44. | 37. | 14. | 3. | 14. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 339. | 1. | 40. | 38. | 17. | 3. | 17. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 316. | 0. | 32. | 41. | 18. | 5. | 18. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 95000. | 280. | 2. | 24. | 34. | 23. | 11. | 23. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 100000. | 211. | 2. | 18. | 31. | 24. | 11. | 24. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE VII (CONT)

RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973

SUMMER

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | CALM | >1 <10 | 10 | | 20 | | 30 | | 40 | | 50 | | 60 | | 70 | | 80 | | 90 | | 100 | | 125 | | 150 | |
|----------------------------------|--------------|------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| | | | | <10 | >10 | <20 | >20 | <30 | >30 | <40 | >40 | <50 | >50 | <60 | >60 | <70 | >70 | <80 | >80 | <90 | >90 | <100 | >100 | <125 | >125 | <150 | >150 |
| 4940. | 1090. | 21. | 63. | | 16. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 5000. | 1162. | 20. | 64. | | 16. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 6000. | 1163. | 1. | 78. | | 19. | | 1. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 7000. | 1163. | 1. | 66. | | 30. | | 4. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 8000. | 1164. | 0. | 60. | | 34. | | 5. | | 1. | | 1. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 9000. | 1168. | 0. | 58. | | 35. | | 6. | | 1. | | 1. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 10000. | 1172. | 0. | 55. | | 38. | | 6. | | 1. | | 1. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 11000. | 1175. | 0. | 51. | | 40. | | 8. | | 1. | | 1. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 12000. | 1178. | 0. | 47. | | 41. | | 10. | | 2. | | 2. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 13000. | 1177. | 0. | 43. | | 41. | | 12. | | 3. | | 3. | | 1. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 14000. | 1176. | 0. | 40. | | 43. | | 11. | | 5. | | 5. | | 1. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 15000. | 1173. | 0. | 36. | | 45. | | 12. | | 5. | | 5. | | 2. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 16000. | 1170. | 0. | 32. | | 47. | | 13. | | 6. | | 6. | | 2. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 18000. | 1161. | 0. | 31. | | 43. | | 16. | | 6. | | 6. | | 3. | | 1. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 20000. | 1147. | 0. | 32. | | 42. | | 15. | | 6. | | 6. | | 3. | | 1. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 25000. | 1071. | 0. | 26. | | 41. | | 18. | | 7. | | 7. | | 4. | | 3. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 30000. | 1013. | 0. | 18. | | 33. | | 25. | | 12. | | 12. | | 6. | | 3. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 35000. | 881. | 1. | 11. | | 29. | | 25. | | 14. | | 14. | | 10. | | 5. | | 1. | | 1. | | 0. | | 0. | | 0. | | 0. |
| 40000. | 760. | 1. | 10. | | 25. | | 23. | | 17. | | 17. | | 9. | | 7. | | 2. | | 2. | | 0. | | 0. | | 0. | | 0. |
| 45000. | 681. | 0. | 12. | | 29. | | 21. | | 15. | | 15. | | 10. | | 6. | | 1. | | 1. | | 0. | | 0. | | 0. | | 0. |
| 50000. | 634. | 0. | 26. | | 34. | | 19. | | 11. | | 11. | | 6. | | 3. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 55000. | 557. | 0. | 39. | | 47. | | 12. | | 3. | | 3. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 60000. | 521. | 1. | 31. | | 56. | | 12. | | 1. | | 1. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 65000. | 481. | 0. | 15. | | 53. | | 30. | | 1. | | 1. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 70000. | 456. | 0. | 7. | | 43. | | 43. | | 6. | | 6. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 75000. | 435. | 0. | 2. | | 28. | | 57. | | 14. | | 14. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 80000. | 420. | 0. | 2. | | 18. | | 51. | | 28. | | 28. | | 1. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 85000. | 401. | 0. | 3. | | 12. | | 39. | | 40. | | 40. | | 6. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 90000. | 371. | 0. | 2. | | 11. | | 31. | | 41. | | 41. | | 15. | | 1. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 95000. | 339. | 1. | 1. | | 8. | | 21. | | 46. | | 46. | | 21. | | 2. | | 0. | | 0. | | 0. | | 0. | | 0. | | 0. |
| 100000. | 296. | 1. | 2. | | 5. | | 20. | | 40. | | 40. | | 28. | | 3. | | 1. | | 0. | | 0. | | 0. | | 0. | | 0. |

TABLE VII (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR SCALAR WIND SPEEDS AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973

FALL

| GEOMETRIC ALTITUDE MSL FT. | TOTAL OBS | CALM | WIND SPEED (KNOTS) | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--------------|------|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|--------------|--------------|------|----|----|----|----|----|----|----|----|----|----|----|
| | | | >1 <10 | >10 <20 | >20 <30 | >30 <40 | >40 <50 | >50 <60 | >60 <70 | >70 <80 | >80 <90 | >90 <100 | >100 <125 | >125 <150 | >150 | | | | | | | | | | | |
| 4940. | 1039. | 25. | 58. | 15. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 5000. | 1187. | 22. | 62. | 16. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 6000. | 1185. | 1. | 70. | 27. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 7000. | 1187. | 0. | 54. | 37. | 7. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 8000. | 1188. | 0. | 43. | 42. | 12. | 2. | 2. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 9000. | 1190. | 0. | 36. | 45. | 15. | 4. | 4. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 10000. | 1190. | 0. | 30. | 46. | 19. | 4. | 4. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 11000. | 1190. | 0. | 25. | 43. | 22. | 8. | 8. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 12000. | 1187. | 0. | 22. | 40. | 23. | 11. | 11. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 13000. | 1187. | 0. | 20. | 37. | 24. | 11. | 11. | 6. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 1187. | 0. | 19. | 35. | 23. | 12. | 12. | 8. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 1183. | 0. | 19. | 33. | 22. | 14. | 14. | 8. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 16000. | 1183. | 0. | 17. | 32. | 22. | 15. | 15. | 7. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 18000. | 1179. | 0. | 15. | 28. | 22. | 16. | 16. | 9. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 20000. | 1162. | 0. | 14. | 25. | 22. | 16. | 16. | 10. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 25000. | 1080. | 0. | 9. | 19. | 22. | 18. | 18. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 30000. | 1012. | 1. | 5. | 11. | 17. | 17. | 17. | 16. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 35000. | 887. | 4. | 3. | 8. | 12. | 13. | 13. | 16. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 40000. | 776. | 2. | 2. | 6. | 9. | 14. | 14. | 15. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 45000. | 700. | 0. | 2. | 6. | 12. | 14. | 14. | 21. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 661. | 1. | 3. | 11. | 22. | 19. | 19. | 18. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 582. | 1. | 11. | 31. | 24. | 14. | 14. | 9. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 550. | 0. | 37. | 38. | 15. | 6. | 6. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 525. | 0. | 47. | 39. | 8. | 4. | 4. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 503. | 0. | 46. | 40. | 10. | 3. | 3. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 478. | 0. | 42. | 38. | 15. | 3. | 3. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 457. | 1. | 36. | 37. | 20. | 4. | 4. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 431. | 1. | 30. | 39. | 20. | 6. | 6. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 396. | 1. | 26. | 32. | 24. | 10. | 10. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 95000. | 343. | 2. | 20. | 31. | 23. | 12. | 12. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 100000. | 290. | 3. | 17. | 27. | 21. | 14. | 14. | 9. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

ATMOSPHERIC STRUCTURE REPORT

STALLION SITE

SECTION I

UPPER AIR TEMPERATURE DATA

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TABLE VIII
 MEAN AND EXTREME UPPER AIR TEMPERATURES (DEGREES CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | JANUARY | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 350. | 18. | 5. | -22. |
| 5000. | 417. | 20. | 5. | -21. |
| 6000. | 418. | 17. | 4. | -17. |
| 7000. | 417. | 14. | 3. | -17. |
| 8000. | 417. | 11. | 2. | -19. |
| 9000. | 418. | 9. | 0. | -20. |
| 10000. | 417. | 8. | -1. | -20. |
| 11000. | 419. | 8. | -3. | -21. |
| 12000. | 419. | 6. | -4. | -23. |
| 13000. | 418. | 5. | -6. | -25. |
| 14000. | 418. | 3. | -8. | -27. |
| 15000. | 416. | 0. | -10. | -29. |
| 16000. | 415. | -2. | -12. | -31. |
| 18000. | 411. | -6. | -16. | -33. |
| 20000. | 394. | -9. | -21. | -35. |
| 25000. | 361. | -22. | -32. | -47. |
| 30000. | 338. | -34. | -44. | -54. |
| 35000. | 298. | -43. | -53. | -61. |
| 40000. | 274. | -44. | -57. | -68. |
| 45000. | 248. | -49. | -59. | -76. |
| 50000. | 213. | -52. | -62. | -73. |
| 55000. | 179. | -53. | -65. | -78. |
| 60000. | 164. | -54. | -64. | -79. |
| 65000. | 153. | -53. | -62. | -75. |
| 70000. | 146. | -51. | -60. | -69. |
| 75000. | 137. | -50. | -58. | -63. |
| 80000. | 121. | -47. | -56. | -63. |
| 85000. | 115. | -46. | -54. | -64. |
| 90000. | 102. | -42. | -52. | -60. |
| 95000. | 97. | -39. | -50. | -59. |
| 100000. | 75. | -37. | -48. | -59. |

TABLE VIII (CONT)
 MEAN AND EXTREME UPPER AIR TEMPERATURES (DEGREES CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | FEBRUARY | | |
|--------------------------------|-----------------------|----------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 365. | 25. | 7. | -12. |
| 5000. | 473. | 24. | 7. | -11. |
| 6000. | 473. | 21. | 5. | -13. |
| 7000. | 473. | 18. | 3. | -14. |
| 8000. | 470. | 15. | 1. | -16. |
| 9000. | 470. | 12. | -1. | -15. |
| 10000. | 470. | 10. | -2. | -17. |
| 11000. | 469. | 9. | -4. | -18. |
| 12000. | 468. | 6. | -6. | -21. |
| 13000. | 468. | 4. | -8. | -24. |
| 14000. | 466. | 3. | -10. | -26. |
| 15000. | 464. | 1. | -11. | -29. |
| 16000. | 465. | 0. | -13. | -31. |
| 18000. | 462. | -5. | -18. | -36. |
| 20000. | 450. | -10. | -22. | -40. |
| 25000. | 408. | -21. | -33. | -47. |
| 30000. | 371. | -33. | -44. | -53. |
| 35000. | 319. | -35. | -53. | -61. |
| 40000. | 289. | -43. | -56. | -69. |
| 45000. | 258. | -48. | -57. | -72. |
| 50000. | 225. | -52. | -62. | -71. |
| 55000. | 187. | -52. | -64. | -74. |
| 60000. | 171. | -54. | -64. | -72. |
| 65000. | 152. | -55. | -62. | -71. |
| 70000. | 127. | -53. | -60. | -68. |
| 75000. | 118. | -52. | -58. | -66. |
| 80000. | 108. | -49. | -56. | -65. |
| 85000. | 105. | -46. | -54. | -66. |
| 90000. | 98. | -44. | -51. | -64. |
| 95000. | 91. | -42. | -48. | -59. |
| 100000. | 69. | -36. | -45. | -55. |

TABLE VIII (CONT)
 MEAN AND EXTREME UPPER AIR TEMPERATURES (DEGREES CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MARCH | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 388. | 28. | 10. | -9. |
| 5000. | 482. | 27. | 10. | -9. |
| 6000. | 483. | 22. | 7. | -9. |
| 7000. | 483. | 20. | 5. | -11. |
| 8000. | 482. | 17. | 3. | -13. |
| 9000. | 481. | 14. | 1. | -16. |
| 10000. | 480. | 11. | -2. | -17. |
| 11000. | 476. | 9. | -4. | -19. |
| 12000. | 475. | 7. | -6. | -22. |
| 13000. | 475. | 4. | -8. | -24. |
| 14000. | 473. | 2. | -10. | -27. |
| 15000. | 473. | 0. | -12. | -29. |
| 16000. | 473. | -2. | -14. | -30. |
| 18000. | 472. | -6. | -18. | -35. |
| 20000. | 463. | -10. | -22. | -39. |
| 25000. | 416. | -21. | -33. | -45. |
| 30000. | 377. | -34. | -44. | -53. |
| 35000. | 313. | -40. | -53. | -61. |
| 40000. | 253. | -46. | -56. | -68. |
| 45000. | 232. | -48. | -57. | -69. |
| 50000. | 202. | -49. | -61. | -70. |
| 55000. | 169. | -49. | -62. | -71. |
| 60000. | 147. | -52. | -61. | -70. |
| 65000. | 131. | -54. | -60. | -69. |
| 70000. | 124. | -52. | -58. | -64. |
| 75000. | 113. | -50. | -56. | -63. |
| 80000. | 105. | -49. | -54. | -60. |
| 85000. | 100. | -43. | -52. | -58. |
| 90000. | 89. | -41. | -50. | -56. |
| 95000. | 81. | -35. | -47. | -54. |
| 100000. | 62. | -32. | -44. | -51. |

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MEAN AND EXTREME UPPER AIR TEMPERATURES (DEGREES CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

APRIL

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|------|---------|
| 4940. | 417. | 27. | 16. | -1. |
| 5000. | 534. | 28. | 15. | 0. |
| 6000. | 534. | 23. | 12. | -1. |
| 7000. | 533. | 20. | 10. | -4. |
| 8000. | 531. | 18. | 7. | -7. |
| 9000. | 533. | 15. | 5. | -9. |
| 10000. | 533. | 12. | 3. | -12. |
| 11000. | 533. | 9. | 0. | -14. |
| 12000. | 532. | 7. | -2. | -16. |
| 13000. | 532. | 6. | -4. | -19. |
| 14000. | 532. | 3. | -6. | -20. |
| 15000. | 532. | 1. | -8. | -22. |
| 16000. | 531. | -2. | -10. | -24. |
| 18000. | 525. | -6. | -15. | -29. |
| 20000. | 501. | -10. | -19. | -34. |
| 25000. | 458. | -22. | -30. | -44. |
| 30000. | 431. | -34. | -41. | -54. |
| 35000. | 333. | -43. | -52. | -59. |
| 40000. | 272. | -43. | -57. | -67. |
| 45000. | 244. | -51. | -58. | -72. |
| 50000. | 222. | -51. | -61. | -71. |
| 55000. | 188. | -53. | -62. | -72. |
| 60000. | 169. | -55. | -63. | -73. |
| 65000. | 158. | -55. | -60. | -67. |
| 70000. | 146. | -52. | -57. | -63. |
| 75000. | 139. | -50. | -55. | -62. |
| 80000. | 125. | -47. | -52. | -59. |
| 85000. | 116. | -45. | -50. | -55. |
| 90000. | 110. | -43. | -47. | -54. |
| 95000. | 98. | -39. | -44. | -52. |
| 100000. | 74. | -34. | -41. | -50. |

TABLE VIII (CONT)
 MEAN AND EXTREME UPPER AIR TEMPERATURES (DEGREES CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAY | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 413. | 33. | 21. | 2. |
| 5000. | 462. | 33. | 20. | 3. |
| 6000. | 462. | 30. | 17. | 2. |
| 7000. | 462. | 26. | 15. | -1. |
| 8000. | 462. | 23. | 13. | -3. |
| 9000. | 462. | 20. | 10. | -6. |
| 10000. | 462. | 16. | 8. | -8. |
| 11000. | 459. | 14. | 5. | -10. |
| 12000. | 457. | 10. | 3. | -13. |
| 13000. | 455. | 7. | 0. | -15. |
| 14000. | 453. | 5. | -2. | -17. |
| 15000. | 450. | 4. | -4. | -21. |
| 16000. | 449. | 1. | -6. | -23. |
| 18000. | 445. | -4. | -11. | -26. |
| 20000. | 435. | -9. | -15. | -30. |
| 25000. | 419. | -19. | -26. | -37. |
| 30000. | 386. | -31. | -38. | -47. |
| 35000. | 307. | -44. | -50. | -57. |
| 40000. | 263. | -50. | -58. | -64. |
| 45000. | 248. | -53. | -60. | -69. |
| 50000. | 222. | -54. | -62. | -71. |
| 55000. | 181. | -55. | -63. | -74. |
| 60000. | 169. | -57. | -63. | -71. |
| 65000. | 151. | -55. | -60. | -66. |
| 70000. | 139. | -52. | -57. | -61. |
| 75000. | 129. | -50. | -54. | -58. |
| 80000. | 124. | -47. | -51. | -55. |
| 85000. | 119. | -42. | -48. | -53. |
| 90000. | 113. | -40. | -45. | -50. |
| 95000. | 97. | -35. | -42. | -48. |
| 100000. | 74. | -33. | -40. | -45. |

TABLE VIII (CONT)
 MEAN AND EXTREME UPPER AIR TEMPERATURES (DEGREES CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | JUNE | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 320. | 38. | 25. | 12. |
| 5000. | 351. | 38. | 25. | 12. |
| 6000. | 352. | 34. | 22. | 13. |
| 7000. | 351. | 30. | 19. | 10. |
| 8000. | 352. | 27. | 17. | 8. |
| 9000. | 351. | 24. | 15. | 6. |
| 10000. | 352. | 21. | 12. | 3. |
| 11000. | 349. | 18. | 10. | 0. |
| 12000. | 351. | 15. | 7. | -3. |
| 13000. | 349. | 12. | 5. | -5. |
| 14000. | 348. | 9. | 3. | -6. |
| 15000. | 346. | 6. | 0. | -8. |
| 16000. | 347. | 4. | -2. | -9. |
| 18000. | 344. | -0. | -7. | -13. |
| 20000. | 338. | -4. | -11. | -17. |
| 25000. | 317. | -10. | -22. | -28. |
| 30000. | 297. | -22. | -33. | -40. |
| 35000. | 247. | -34. | -44. | -51. |
| 40000. | 213. | -45. | -55. | -63. |
| 45000. | 195. | -53. | -61. | -68. |
| 50000. | 185. | -58. | -65. | -73. |
| 55000. | 169. | -58. | -67. | -74. |
| 60000. | 156. | -58. | -64. | -69. |
| 65000. | 137. | -55. | -59. | -65. |
| 70000. | 131. | -51. | -56. | -60. |
| 75000. | 126. | -49. | -53. | -56. |
| 80000. | 122. | -45. | -50. | -54. |
| 85000. | 116. | -42. | -47. | -52. |
| 90000. | 110. | -38. | -45. | -51. |
| 95000. | 97. | -35. | -42. | -49. |
| 100000. | 83. | -31. | -39. | -46. |

TABLE VIII (CONT)
 MEAN AND EXTREME UPPER AIR TEMPERATURES (DEGREES CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | JULY | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 320. | 38. | 26. | 17. |
| 5000. | 350. | 38. | 26. | 17. |
| 6000. | 350. | 33. | 23. | 15. |
| 7000. | 350. | 30. | 21. | 13. |
| 8000. | 351. | 27. | 19. | 11. |
| 9000. | 351. | 24. | 16. | 9. |
| 10000. | 351. | 21. | 14. | 3. |
| 11000. | 354. | 18. | 12. | 3. |
| 12000. | 354. | 16. | 9. | 0. |
| 13000. | 354. | 13. | 7. | 0. |
| 14000. | 354. | 10. | 5. | 1. |
| 15000. | 353. | 7. | 3. | -2. |
| 16000. | 352. | 5. | 0. | -5. |
| 18000. | 350. | 2. | -4. | -8. |
| 20000. | 345. | -3. | -8. | -12. |
| 25000. | 317. | -13. | -17. | -22. |
| 30000. | 297. | -24. | -28. | -33. |
| 35000. | 261. | -36. | -40. | -44. |
| 40000. | 221. | -48. | -52. | -56. |
| 45000. | 196. | -57. | -62. | -65. |
| 50000. | 185. | -63. | -69. | -74. |
| 55000. | 162. | -65. | -69. | -75. |
| 60000. | 153. | -59. | -65. | -71. |
| 65000. | 141. | -55. | -60. | -65. |
| 70000. | 135. | -53. | -56. | -60. |
| 75000. | 129. | -50. | -53. | -57. |
| 80000. | 127. | -45. | -50. | -55. |
| 85000. | 119. | -42. | -48. | -52. |
| 90000. | 113. | -36. | -45. | -51. |
| 95000. | 107. | -37. | -43. | -51. |
| 100000. | 97. | -34. | -40. | -48. |

TABLE VIII (CONT)
 MEAN AND EXTREME UPPER AIR TEMPERATURES (DEGREES CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | AUGUST | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 355. | 35. | 25. | 15. |
| 5000. | 384. | 35. | 24. | 14. |
| 6000. | 384. | 32. | 22. | 14. |
| 7000. | 385. | 30. | 20. | 12. |
| 8000. | 385. | 26. | 18. | 10. |
| 9000. | 385. | 23. | 15. | 8. |
| 10000. | 384. | 21. | 13. | 5. |
| 11000. | 384. | 17. | 11. | 3. |
| 12000. | 384. | 14. | 8. | 2. |
| 13000. | 385. | 12. | 6. | 0. |
| 14000. | 385. | 10. | 4. | -1. |
| 15000. | 384. | 8. | 2. | -4. |
| 16000. | 382. | 5. | -0. | -6. |
| 18000. | 378. | 1. | -4. | -9. |
| 20000. | 375. | -4. | -8. | -12. |
| 25000. | 358. | -13. | -18. | -22. |
| 30000. | 344. | -23. | -29. | -36. |
| 35000. | 308. | -35. | -40. | -46. |
| 40000. | 277. | -47. | -52. | -56. |
| 45000. | 242. | -56. | -62. | -66. |
| 50000. | 220. | -62. | -69. | -74. |
| 55000. | 195. | -62. | -69. | -76. |
| 60000. | 183. | -60. | -64. | -69. |
| 65000. | 175. | -55. | -59. | -65. |
| 70000. | 165. | -52. | -56. | -60. |
| 75000. | 158. | -50. | -53. | -57. |
| 80000. | 151. | -47. | -51. | -55. |
| 85000. | 147. | -45. | -48. | -52. |
| 90000. | 131. | -40. | -46. | -50. |
| 95000. | 118. | -37. | -43. | -49. |
| 100000. | 102. | -37. | -41. | -46. |

TABLE VIII (CONT)
 MEAN AND EXTREME UPPER AIR TEMPERATURES (DEGREES CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | SEPTEMBER | | | |
|--------------------------------|-----------------------|---------|------|---------|
| | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
| 4940. | 322. | 33. | 22. | 7. |
| 5000. | 364. | 33. | 21. | 8. |
| 6000. | 363. | 29. | 19. | 8. |
| 7000. | 364. | 26. | 17. | 6. |
| 8000. | 364. | 23. | 14. | 4. |
| 9000. | 365. | 20. | 12. | 1. |
| 10000. | 364. | 17. | 10. | 0. |
| 11000. | 363. | 14. | 8. | -3. |
| 12000. | 363. | 11. | 5. | -5. |
| 13000. | 363. | 8. | 3. | -6. |
| 14000. | 363. | 6. | 1. | -8. |
| 15000. | 362. | 4. | -1. | -10. |
| 16000. | 362. | 2. | -2. | -13. |
| 18000. | 361. | 0. | -6. | -18. |
| 20000. | 359. | -4. | -10. | -22. |
| 25000. | 346. | -15. | -20. | -33. |
| 30000. | 326. | -25. | -32. | -45. |
| 35000. | 278. | -37. | -43. | -49. |
| 40000. | 253. | -47. | -53. | -60. |
| 45000. | 232. | -53. | -61. | -65. |
| 50000. | 219. | -58. | -68. | -74. |
| 55000. | 196. | -58. | -69. | -76. |
| 60000. | 184. | -55. | -65. | -70. |
| 65000. | 174. | -54. | -60. | -65. |
| 70000. | 163. | -51. | -57. | -63. |
| 75000. | 156. | -49. | -54. | -58. |
| 80000. | 150. | -47. | -51. | -55. |
| 85000. | 142. | -45. | -49. | -52. |
| 90000. | 131. | -42. | -47. | -51. |
| 95000. | 115. | -41. | -45. | -49. |
| 100000. | 102. | -36. | -42. | -48. |

MEAN AND EXTREME UPPER AIR TEMPERATURES (DEGREES CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

OCTOBER

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|------|---------|
| 4940. | 367. | 29. | 17. | 1. |
| 5000. | 417. | 28. | 17. | 0. |
| 6000. | 417. | 25. | 15. | -3. |
| 7000. | 416. | 23. | 13. | -5. |
| 8000. | 417. | 20. | 11. | -5. |
| 9000. | 418. | 17. | 9. | -7. |
| 10000. | 418. | 14. | 7. | -9. |
| 11000. | 418. | 11. | 5. | -11. |
| 12000. | 418. | 10. | 3. | -13. |
| 13000. | 418. | 9. | 1. | -15. |
| 14000. | 417. | 7. | -1. | -18. |
| 15000. | 416. | 5. | -3. | -20. |
| 16000. | 414. | 3. | -4. | -19. |
| 18000. | 413. | -2. | -8. | -23. |
| 20000. | 410. | -5. | -13. | -27. |
| 25000. | 388. | -16. | -24. | -31. |
| 30000. | 362. | -27. | -36. | -44. |
| 35000. | 314. | -38. | -47. | -55. |
| 40000. | 288. | -47. | -55. | -64. |
| 45000. | 255. | -50. | -62. | -71. |
| 50000. | 247. | -56. | -67. | -73. |
| 55000. | 219. | -57. | -68. | -75. |
| 60000. | 210. | -58. | -65. | -71. |
| 65000. | 201. | -55. | -61. | -68. |
| 70000. | 195. | -53. | -58. | -63. |
| 75000. | 185. | -50. | -55. | -59. |
| 80000. | 175. | -48. | -53. | -57. |
| 85000. | 165. | -45. | -50. | -55. |
| 90000. | 152. | -44. | -49. | -53. |
| 95000. | 134. | -41. | -47. | -52. |
| 100000. | 115. | -40. | -45. | -51. |

TABLE VIII (CONT)
 MEAN AND EXTREME UPPER AIR TEMPERATURES (DEGREES CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | NOVEMBER | | |
|--------------------------------|-----------------------|----------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 348. | 25. | 11. | -3. |
| 5000. | 408. | 23. | 11. | -3. |
| 6000. | 407. | 20. | 9. | -5. |
| 7000. | 407. | 19. | 7. | -6. |
| 8000. | 408. | 18. | 5. | -8. |
| 9000. | 407. | 15. | 4. | -10. |
| 10000. | 407. | 13. | 2. | -12. |
| 11000. | 407. | 11. | 1. | -13. |
| 12000. | 404. | 10. | -1. | -15. |
| 13000. | 403. | 8. | -3. | -15. |
| 14000. | 403. | 6. | -4. | -18. |
| 15000. | 402. | 4. | -6. | -20. |
| 16000. | 402. | 3. | -8. | -21. |
| 18000. | 401. | -2. | -12. | -25. |
| 20000. | 390. | -7. | -17. | -29. |
| 25000. | 345. | -17. | -27. | -40. |
| 30000. | 322. | -27. | -38. | -47. |
| 35000. | 293. | -39. | -49. | -59. |
| 40000. | 233. | -47. | -57. | -66. |
| 45000. | 210. | -50. | -62. | -71. |
| 50000. | 193. | -53. | -65. | -77. |
| 55000. | 164. | -57. | -67. | -78. |
| 60000. | 152. | -55. | -65. | -73. |
| 65000. | 148. | -57. | -62. | -70. |
| 70000. | 143. | -53. | -60. | -66. |
| 75000. | 134. | -53. | -58. | -62. |
| 80000. | 130. | -49. | -55. | -61. |
| 85000. | 123. | -44. | -53. | -59. |
| 90000. | 113. | -38. | -51. | -58. |
| 95000. | 94. | -40. | -48. | -55. |
| 100000. | 74. | -33. | -46. | -56. |

TABLE VIII (CONT)
 MEAN AND EXTREME UPPER AIR TEMPERATURES (DEGREES CELSIUS)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | DECEMBER | | |
|--------------------------------|-----------------------|----------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 297. | 19. | 5. | -10. |
| 5000. | 328. | 19. | 5. | -8. |
| 6000. | 329. | 17. | 4. | -8. |
| 7000. | 329. | 14. | 3. | -9. |
| 8000. | 329. | 12. | 2. | -8. |
| 9000. | 329. | 10. | 0. | -10. |
| 10000. | 329. | 9. | -1. | -12. |
| 11000. | 329. | 7. | -3. | -14. |
| 12000. | 329. | 6. | -4. | -17. |
| 13000. | 329. | 5. | -6. | -19. |
| 14000. | 329. | 3. | -7. | -21. |
| 15000. | 328. | 1. | -9. | -23. |
| 16000. | 328. | -2. | -11. | -26. |
| 18000. | 326. | -7. | -15. | -29. |
| 20000. | 321. | -12. | -20. | -32. |
| 25000. | 305. | -23. | -31. | -42. |
| 30000. | 273. | -32. | -42. | -50. |
| 35000. | 242. | -33. | -52. | -61. |
| 40000. | 216. | -42. | -57. | -67. |
| 45000. | 187. | -51. | -60. | -71. |
| 50000. | 175. | -53. | -63. | -71. |
| 55000. | 153. | -54. | -65. | -75. |
| 60000. | 149. | -56. | -64. | -73. |
| 65000. | 146. | -54. | -63. | -74. |
| 70000. | 138. | -51. | -60. | -66. |
| 75000. | 136. | -52. | -59. | -64. |
| 80000. | 132. | -51. | -57. | -62. |
| 85000. | 126. | -47. | -55. | -64. |
| 90000. | 120. | -44. | -53. | -62. |
| 95000. | 113. | -40. | -51. | -60. |
| 100000. | 92. | -32. | -48. | -57. |

TABLE IX
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973

JANUARY

| GEOMETRIC ALTITUDE MSL FEET | TOTAL ORS | TEMPERATURE DEGREES CELSIUS | | | | | | | | | | |
|-----------------------------------|--------------|-----------------------------|--------------|--------------|--------------|--------------|------------|----------|-----------|------------|------------|------------|
| | | >-30 <-30 | >-25 <-25 | >-20 <-20 | >-15 <-15 | >-10 <-10 | >-5 <-5 | >0 <5 | >5 <10 | >10 <15 | >15 <20 | >20 <25 |
| 4940. | 350. | 0. | 0. | 1. | 1. | 5. | 15. | 24. | 27. | 21. | 6. | 0. |
| 5000. | 417. | 0. | 0. | 0. | 1. | 4. | 15. | 25. | 27. | 21. | 6. | 0. |
| 6000. | 418. | 0. | 0. | 1. | 1. | 4. | 12. | 34. | 35. | 13. | 0. | 0. |
| 7000. | 417. | 0. | 0. | 1. | 1. | 5. | 17. | 37. | 34. | 5. | 0. | 0. |
| 8000. | 417. | 0. | 0. | 1. | 2. | 5. | 20. | 41. | 29. | 1. | 0. | 0. |
| 9000. | 418. | 0. | 0. | 1. | 2. | 8. | 27. | 45. | 17. | 0. | 0. | 0. |
| 10000. | 417. | 0. | 0. | 2. | 3. | 10. | 38. | 41. | 6. | 0. | 0. | 0. |
| 11000. | 419. | 0. | 1. | 2. | 5. | 17. | 43. | 32. | 1. | 0. | 0. | 0. |
| 12000. | 419. | 0. | 1. | 1. | 7. | 28. | 42. | 19. | 0. | 0. | 0. | 0. |
| 13000. | 418. | 0. | 2. | 3. | 10. | 37. | 42. | 5. | 0. | 0. | 0. | 0. |
| 14000. | 418. | 0. | 1. | 6. | 20. | 42. | 29. | 1. | 0. | 0. | 0. | 0. |
| 15000. | 416. | 0. | 1. | 9. | 31. | 42. | 13. | 1. | 0. | 0. | 0. | 0. |

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | TEMPERATURE DEGREES CELSIUS | | | | | | | | | | |
|-----------------------------------|--------------|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------------|
| | | >-55 <-55 | >-50 <-50 | >-45 <-45 | >-40 <-40 | >-35 <-35 | >-30 <-30 | >-25 <-25 | >-20 <-20 | >-15 <-15 | >-10 <-10 | >-5 <-5 |
| 16000. | 415. | 0. | 0. | 0. | 0. | 0. | 1. | 4. | 12. | 41. | 39. | 2. |
| 18000. | 411. | 0. | 0. | 0. | 0. | 1. | 4. | 11. | 35. | 41. | 8. | 0. |
| 20000. | 394. | 0. | 0. | 0. | 0. | 4. | 10. | 32. | 41. | 11. | 1. | 0. |
| 25000. | 361. | 0. | 0. | 1. | 18. | 42. | 29. | 5. | 0. | 0. | 0. | 0. |
| 30000. | 338. | 0. | 5. | 32. | 17. | 1. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IX (CONT)

JANUARY

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | -85 | -85 | -80 | -80 | -75 | -75 | -70 | -70 | -65 | -65 | -60 | -60 | -55 | -55 | -50 | -50 | -45 | -45 | -40 | -40 | -35 | -35 | -30 | -30 |
| 35000. | 298. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 28. | 53. | 17. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 40000. | 274. | 0. | 0. | 0. | 0. | 0. | 0. | 6. | 29. | 28. | 24. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 45000. | 248. | 0. | 0. | 0. | 0. | 2. | 2. | 6. | 29. | 40. | 21. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 213. | 0. | 0. | 0. | 0. | 2. | 2. | 22. | 47. | 27. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 179. | 0. | 0. | 0. | 1. | 9. | 32. | 32. | 44. | 12. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 164. | 0. | 0. | 0. | 1. | 7. | 30. | 30. | 45. | 13. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 153. | 0. | 0. | 0. | 0. | 3. | 12. | 12. | 62. | 20. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 146. | 0. | 0. | 0. | 0. | 0. | 4. | 4. | 44. | 45. | 7. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 137. | 0. | 0. | 0. | 0. | 0. | 3. | 3. | 23. | 61. | 12. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 121. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 8. | 50. | 36. | 5. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 115. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 39. | 50. | 10. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 102. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 17. | 55. | 27. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 95000. | 97. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 6. | 41. | 40. | 11. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 100000. | 75. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 5. | 16. | 53. | 21. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IX (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973

FEBRUARY

TEMPERATURE DEGREES CELSIUS

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | | | | | | | | | | | | |
|-----------------------------------|--------------|------|------|------|------|------|------|------|------|------|------|-----|-----|
| | | <-30 | >-30 | <-25 | >-25 | <-20 | >-20 | <-15 | >-15 | <-10 | >-10 | <-5 | >-5 |
| 4940. | 366. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 4. | 9. | 24. | 28. | 19. |
| 5000. | 473. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 3. | 9. | 23. | 31. | 22. |
| 6000. | 473. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 3. | 14. | 32. | 33. | 15. |
| 7000. | 473. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 4. | 22. | 34. | 29. | 10. |
| 8000. | 470. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 10. | 26. | 35. | 24. | 4. |
| 9000. | 470. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 17. | 32. | 33. | 14. | 1. |
| 10000. | 470. | 0. | 0. | 0. | 0. | 1. | 0. | 6. | 20. | 35. | 33. | 6. | 0. |
| 11000. | 469. | 0. | 0. | 0. | 0. | 2. | 0. | 11. | 27. | 37. | 21. | 3. | 0. |
| 12000. | 468. | 0. | 0. | 0. | 0. | 4. | 0. | 15. | 32. | 41. | 8. | 0. | 0. |
| 13000. | 468. | 0. | 0. | 1. | 0. | 8. | 0. | 22. | 35. | 30. | 5. | 0. | 0. |
| 14000. | 466. | 0. | 0. | 3. | 0. | 10. | 0. | 26. | 42. | 18. | 1. | 0. | 0. |
| 15000. | 464. | 0. | 0. | 6. | 0. | 13. | 0. | 37. | 37. | 6. | 0. | 0. | 0. |

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | | | | | | | | | | | | |
|-----------------------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | <-55 | >-55 | <-50 | >-50 | <-45 | >-45 | <-40 | >-40 | <-35 | >-35 | <-30 | >-30 |
| 16000. | 465. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 8. |
| 18000. | 462. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 17. | 44. |
| 20000. | 450. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 6. | 15. | 41. | 33. | 28. |
| 25000. | 408. | 0. | 0. | 0. | 1. | 6. | 0. | 22. | 47. | 19. | 3. | 0. | 4. |
| 30000. | 371. | 0. | 5. | 35. | 49. | 11. | 1. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IX (CONT)

FEBRUARY

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | -85 | | -80 | | -75 | | -70 | | -65 | | -60 | | -55 | | -50 | | -45 | | -40 | | -35 | | -30 | |
|-----------------------------------|--------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|----|-----|----|-----|----|
| | | -85 | -80 | -75 | -70 | -65 | -60 | -55 | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 | 15 | 20 | 25 | 30 |
| 35000. | 319. | 0. | 0. | 0. | 0. | 0. | 1. | 34. | 42. | 17. | 4. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 40000. | 289. | 0. | 0. | 0. | 0. | 8. | 18. | 20. | 33. | 20. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 45000. | 258. | 0. | 0. | 0. | 2. | 3. | 14. | 51. | 28. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 225. | 0. | 0. | 0. | 0. | 13. | 56. | 27. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 187. | 0. | 0. | 0. | 6. | 36. | 46. | 10. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 171. | 0. | 0. | 0. | 5. | 32. | 52. | 11. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 152. | 0. | 0. | 0. | 1. | 14. | 60. | 24. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 127. | 0. | 0. | 0. | 0. | 6. | 39. | 52. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 118. | 0. | 0. | 0. | 0. | 2. | 25. | 59. | 14. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 108. | 0. | 0. | 0. | 0. | 0. | 14. | 36. | 48. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 105. | 0. | 0. | 0. | 0. | 1. | 4. | 23. | 64. | 9. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 98. | 0. | 0. | 0. | 0. | 0. | 2. | 10. | 50. | 37. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 95000. | 91. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 25. | 60. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 100000. | 69. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 3. | 49. | 38. | 9. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IV (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973

MARCH

TEMPERATURE DEGREES CELSIUS

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-----|-----|-----|-----|------|------|------|------|------|------|------|------|
| | | < -30 | > -30 | < -25 | > -25 | < -20 | > -20 | < -15 | > -15 | < -10 | > -10 | < -5 | > -5 | < 0 | > 0 | < 5 | > 5 | < 10 | > 10 | < 15 | > 15 | < 20 | > 20 | < 25 | > 25 |
| 4940. | 388. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 6. | 15. | 20. | 29. | 18. | 9. | 1. | | | | | | | | |
| 5000. | 482. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 6. | 18. | 24. | 26. | 17. | 7. | 1. | | | | | | | | |
| 6000. | 483. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 10. | 22. | 32. | 23. | 11. | 1. | 0. | | | | | | | | |
| 7000. | 483. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 4. | 15. | 29. | 31. | 17. | 4. | 0. | 0. | | | | | | | | |
| 8000. | 482. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 8. | 21. | 34. | 24. | 24. | 12. | 1. | 0. | 0. | | | | | | | | |
| 9000. | 481. | 0. | 0. | 0. | 0. | 0. | 0. | 3. | 12. | 29. | 32. | 20. | 20. | 4. | 0. | 0. | 0. | | | | | | | | |
| 10000. | 480. | 0. | 0. | 0. | 0. | 1. | 5. | 19. | 35. | 28. | 11. | 0. | 11. | 0. | 0. | 0. | 0. | | | | | | | | |
| 11000. | 476. | 0. | 0. | 0. | 0. | 1. | 10. | 26. | 33. | 25. | 5. | 0. | 5. | 0. | 0. | 0. | 0. | | | | | | | | |
| 12000. | 475. | 0. | 0. | 1. | 4. | 16. | 31. | 36. | 13. | 1. | 0. | 0. | 1. | 0. | 0. | 0. | 0. | | | | | | | | |
| 13000. | 475. | 0. | 0. | 2. | 7. | 21. | 35. | 29. | 6. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | | | | | | | |
| 14000. | 473. | 0. | 0. | 2. | 13. | 26. | 40. | 18. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | | | | | | | |
| 15000. | 473. | 0. | 2. | 4. | 19. | 28. | 38. | 8. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | | | | | | | |

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | | | | | | | | | | | | | | | | |
|-----------------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-----|----|--|--|
| | | < -55 | > -55 | > -50 | > -45 | > -40 | > -35 | > -30 | > -25 | > -20 | > -15 | > -10 | > -5 | > 0 | | | |
| 16000. | 473. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 9. | 24. | 40. | 22. | 3. | 0. | | |
| 18000. | 472. | 0. | 0. | 0. | 0. | 0. | 2. | 7. | 21. | 39. | 27. | 4. | 4. | 0. | 0. | | |
| 20000. | 463. | 0. | 0. | 0. | 0. | 2. | 5. | 18. | 38. | 29. | 8. | 0. | 0. | 0. | 0. | | |
| 25000. | 416. | 0. | 0. | 0. | 0. | 25. | 45. | 21. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 30000. | 377. | 0. | 3. | 36. | 45. | 15. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |

TABLE IX (CONT)

MARCH

| GEOMETRIC ALTITUDE MSL FEET | TOTAL ORS | | | | | | | | | | | | |
|-----------------------------------|--------------|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | <-85 | >-85 <-80 | >-80 <-75 | >-75 <-70 | >-70 <-65 | >-65 <-60 | >-60 <-55 | >-55 <-50 | >-50 <-45 | >-45 <-40 | >-40 <-35 | >-35 <-30 |
| 35000. | 313. | 0. | 0. | 0. | 0. | 0. | 1. | 28. | 50. | 15. | 4. | 0. | 0. |
| 40000. | 253. | 0. | 0. | 0. | 0. | 2. | 28. | 26. | 25. | 18. | 0. | 0. | 0. |
| 45000. | 232. | 0. | 0. | 0. | 0. | 3. | 16. | 52. | 27. | 2. | 0. | 0. | 0. |
| 50000. | 202. | 0. | 0. | 0. | 0. | 5. | 50. | 38. | 7. | 0. | 0. | 0. | 0. |
| 55000. | 169. | 0. | 0. | 0. | 2. | 15. | 53. | 25. | 5. | 1. | 0. | 0. | 0. |
| 60000. | 147. | 0. | 0. | 0. | 0. | 11. | 47. | 41. | 1. | 0. | 0. | 0. | 0. |
| 65000. | 131. | 0. | 0. | 0. | 0. | 2. | 50. | 47. | 2. | 0. | 0. | 0. | 0. |
| 70000. | 124. | 0. | 0. | 0. | 0. | 0. | 15. | 76. | 9. | 0. | 0. | 0. | 0. |
| 75000. | 113. | 0. | 0. | 0. | 0. | 0. | 5. | 62. | 31. | 2. | 0. | 0. | 0. |
| 80000. | 105. | 0. | 0. | 0. | 0. | 0. | 0. | 31. | 64. | 5. | 0. | 0. | 0. |
| 85000. | 100. | 0. | 0. | 0. | 0. | 0. | 0. | 8. | 73. | 18. | 1. | 0. | 0. |
| 90000. | 89. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 44. | 48. | 7. | 0. | 0. |
| 95000. | 81. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 14. | 62. | 17. | 0. | 0. |
| 100000. | 62. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 37. | 45. | 11. | 5. |

TABLE IX (CONT)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
 AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973

APRIL

TEMPERATURE DEGREES CELSIUS

| GEOMETRIC ALTITUDE MSL FEET | TOTAL ORS | | | | | | | | | | | | |
|-----------------------------------|--------------|-------|----------------|----------------|----------------|---------------|-------------|------------|-------------|--------------|--------------|--------------|--------------|
| | | < -25 | > -25 < -20 | > -20 < -15 | > -15 < -10 | > -10 < -5 | > -5 < 0 | > 0 < 5 | > 5 < 10 | > 10 < 15 | > 15 < 20 | > 20 < 25 | > 25 < 30 |
| 4940. | 417. | 0. | 0. | 0. | 0. | 0. | 0. | 3. | 15. | 27. | 29. | 24. | 3. |
| 5000. | 534. | 0. | 0. | 0. | 0. | 0. | 0. | 3. | 15. | 27. | 30. | 22. | 3. |
| 6000. | 534. | 0. | 0. | 0. | 0. | 0. | 1. | 7. | 24. | 37. | 26. | 6. | 0. |
| 7000. | 533. | 0. | 0. | 0. | 0. | 0. | 2. | 11. | 34. | 37. | 15. | 1. | 0. |
| 8000. | 531. | 0. | 0. | 0. | 0. | 1. | 5. | 18. | 44. | 28. | 4. | 0. | 0. |
| 9000. | 533. | 0. | 0. | 0. | 0. | 3. | 9. | 35. | 41. | 13. | 0. | 0. | 0. |
| 10000. | 533. | 0. | 0. | 0. | 0. | 5. | 17. | 45. | 28. | 4. | 0. | 0. | 0. |
| 11000. | 533. | 0. | 0. | 0. | 2. | 8. | 31. | 46. | 12. | 0. | 0. | 0. | 0. |
| 12000. | 532. | 0. | 0. | 0. | 5. | 13. | 48. | 30. | 5. | 0. | 0. | 0. | 0. |
| 13000. | 532. | 0. | 0. | 2. | 6. | 24. | 55. | 13. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 532. | 0. | 0. | 3. | 9. | 46. | 34. | 7. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 532. | 0. | 1. | 4. | 19. | 58. | 17. | 1. | 0. | 0. | 0. | 0. | 0. |

| GEOMETRIC ALTITUDE MSL FEET | TOTAL ORS | | | | | | | | | | | | |
|-----------------------------------|--------------|-------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|-------------|
| | | < -55 | > -55 < -50 | > -50 < -45 | > -45 < -40 | > -40 < -35 | > -35 < -30 | > -30 < -25 | > -25 < -20 | > -20 < -15 | > -15 < -10 | > -10 < -5 | > -5 < 0 |
| 16000. | 531. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 3. | 7. | 38. | 44. | 8. |
| 18000. | 525. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 5. | 28. | 55. | 10. | 0. |
| 20000. | 501. | 0. | 0. | 0. | 0. | 0. | 2. | 4. | 20. | 61. | 13. | 0. | 0. |
| 25000. | 458. | 0. | 0. | 0. | 2. | 6. | 37. | 50. | 6. | 0. | 0. | 0. | 0. |
| 30000. | 431. | 0. | 0. | 8. | 55. | 35. | 1. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IX (CONT)

APRIL

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | >-80 | | >-75 | | >-70 | | >-65 | | >-60 | | >-55 | | >-50 | | >-45 | | >-40 | | >-35 | | >-30 | | >-25 | |
|-----------------------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| | | <-80 | <-75 | <-70 | <-65 | <-60 | <-55 | <-50 | <-45 | <-40 | <-35 | <-30 | <-25 | <-45 | <-40 | <-35 | <-30 | <-25 | <-35 | <-30 | <-25 | <-30 | <-25 | | |
| 35000. | 333. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 33. | 10. | 59. | 30. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 40000. | 272. | 0. | 0. | 0. | 1. | 33. | 1. | 1. | 17. | 34. | 22. | 10. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 45000. | 244. | 0. | 0. | 1. | 6. | 33. | 6. | 6. | 17. | 49. | 27. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 50000. | 222. | 0. | 0. | 0. | 7. | 51. | 7. | 7. | 51. | 36. | 5. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 55000. | 188. | 0. | 0. | 2. | 19. | 54. | 19. | 19. | 54. | 24. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 60000. | 169. | 0. | 0. | 1. | 18. | 60. | 18. | 18. | 60. | 20. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 65000. | 158. | 0. | 0. | 0. | 3. | 46. | 3. | 3. | 46. | 49. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 70000. | 146. | 0. | 0. | 0. | 0. | 10. | 0. | 0. | 10. | 71. | 20. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 75000. | 139. | 0. | 0. | 0. | 0. | 2. | 0. | 0. | 2. | 35. | 63. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 80000. | 125. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 9. | 79. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 85000. | 116. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 49. | 48. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 90000. | 110. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 14. | 68. | 18. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 95000. | 98. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 4. | 37. | 55. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 100000. | 74. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 8. | 55. | 55. | 34. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |

TABLE IX (CONT)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
 AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973

MAY

TEMPERATURE DEGREES CELSIUS

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | | | | | | | | | | | | | | |
|-----------------------------------|--------------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | | <-20 | >-20 | >-15 | >-10 | >-5 | >0 | >5 | >10 | >15 | >20 | >25 | >30 | >35 | >35 |
| 4940. | 413. | 0. | 0. | 0. | 0. | 0. | 0. | 4. | 11. | 25. | 31. | 23. | 5. | 0. | |
| 5000. | 462. | 0. | 0. | 0. | 0. | 0. | 0. | 4. | 13. | 28. | 30. | 22. | 3. | 0. | |
| 6000. | 462. | 0. | 0. | 0. | 0. | 0. | 0. | 6. | 23. | 40. | 26. | 5. | 0. | 0. | |
| 7000. | 462. | 0. | 0. | 0. | 0. | 0. | 2. | 11. | 34. | 39. | 14. | 0. | 0. | 0. | |
| 8000. | 462. | 0. | 0. | 0. | 0. | 0. | 5. | 20. | 43. | 30. | 2. | 0. | 0. | 0. | |
| 9000. | 462. | 0. | 0. | 0. | 0. | 1. | 10. | 31. | 46. | 13. | 0. | 0. | 0. | 0. | |
| 10000. | 462. | 0. | 0. | 0. | 1. | 4. | 19. | 45. | 30. | 2. | 0. | 0. | 0. | 0. | |
| 11000. | 459. | 0. | 0. | 0. | 1. | 8. | 32. | 48. | 10. | 0. | 0. | 0. | 0. | 0. | |
| 12000. | 457. | 0. | 0. | 1. | 2. | 16. | 49. | 31. | 1. | 0. | 0. | 0. | 0. | 0. | |
| 13000. | 455. | 0. | 0. | 1. | 4. | 34. | 51. | 9. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 14000. | 453. | 0. | 1. | 1. | 13. | 52. | 33. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 15000. | 450. | 0. | 1. | 3. | 28. | 57. | 10. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | | | | | | | | | | | | | | |
|-----------------------------------|--------------|------|------|------|------|------|------|------|------|------|------|-----|----|----|----|
| | | <-50 | >-50 | >-45 | >-40 | >-35 | >-30 | >-25 | >-20 | >-15 | >-10 | >-5 | >0 | >5 | >5 |
| 16000. | 449. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 8. | 54. | 36. | 1. | 0. | |
| 18000. | 445. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 6. | 49. | 43. | 2. | 0. | 0. | |
| 20000. | 435. | 0. | 0. | 0. | 0. | 0. | 0. | 4. | 44. | 49. | 3. | 0. | 0. | 0. | |
| 25000. | 419. | 0. | 0. | 0. | 1. | 10. | 52. | 36. | 1. | 0. | 0. | 0. | 0. | 0. | |
| 30000. | 386. | 0. | 2. | 21. | 63. | 14. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |

TABLE IX (CONT)

MAY

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | | | | | | | | | | | | |
|-----------------------------------|--------------|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | <-80 | -80 -<-75 | -75 -<-70 | -70 -<-65 | -65 -<-60 | -60 -<-55 | -55 -<-50 | -50 -<-45 | -45 -<-40 | -40 -<-35 | -35 -<-30 | -30 -<-25 |
| 35000. | 307. | 0. | 0. | 0. | 0. | 0. | 1. | 37. | 58. | 4. | 0. | 0. | 0. |
| 40000. | 263. | 0. | 0. | 0. | 0. | 23. | 61. | 16. | 0. | 0. | 0. | 0. | 0. |
| 45000. | 248. | 0. | 0. | 0. | 8. | 34. | 47. | 11. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 222. | 0. | 0. | 1. | 10. | 54. | 34. | 0. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 181. | 0. | 0. | 3. | 25. | 55. | 15. | 1. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 169. | 0. | 0. | 1. | 24. | 65. | 9. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 151. | 0. | 0. | 0. | 1. | 46. | 53. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 139. | 0. | 0. | 0. | 0. | 1. | 76. | 23. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 129. | 0. | 0. | 0. | 0. | 0. | 19. | 78. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 124. | 0. | 0. | 0. | 0. | 0. | 0. | 63. | 2. | 0. | 0. | 0. | 0. |
| 85000. | 119. | 0. | 0. | 0. | 0. | 0. | 0. | 10. | 37. | 0. | 0. | 0. | 0. |
| 90000. | 113. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 85. | 5. | 0. | 0. | 0. |
| 95000. | 97. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 52. | 47. | 1. | 0. | 0. |
| 100000. | 74. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 16. | 68. | 14. | 0. | 0. |
| | | | | | | | | | 0. | 46. | 53. | 1. | 0. |

TABLE IX (CONT.)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
 AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| | | JUNE | | | | | | | | | | | | | |
|-----------------------------------|--------------|-----------------------------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|--|
| | | TEMPERATURE DEGREES CELSIUS | | | | | | | | | | | | | |
| GEOMETRIC ALTITUDE MSL FEET | TOTAL OPS | > -15 | > -10 | > -5 | > 0 | > 5 | > 10 | > 15 | > 20 | > 25 | > 30 | > 35 | > 40 | | |
| | | < -15 | < -10 | < -5 | < 0 | < 5 | < 10 | < 15 | < 20 | < 25 | < 30 | < 35 | < 40 | < 45 | |
| 4940. | 320. | 0. | 0. | 0. | 0. | 0. | 3. | 16. | 25. | 34. | 19. | 3. | 0. | | |
| 5000. | 351. | 0. | 0. | 0. | 0. | 0. | 3. | 16. | 27. | 35. | 17. | 3. | 0. | | |
| 6000. | 352. | 0. | 0. | 0. | 0. | 0. | 4. | 30. | 41. | 22. | 3. | 0. | 0. | | |
| 7000. | 351. | 0. | 0. | 0. | 0. | 0. | 11. | 41. | 39. | 8. | 0. | 0. | 0. | | |
| 8000. | 352. | 0. | 0. | 0. | 0. | 2. | 27. | 47. | 22. | 2. | 0. | 0. | 0. | | |
| 9000. | 351. | 0. | 0. | 0. | 0. | 8. | 42. | 43. | 7. | 0. | 0. | 0. | 0. | | |
| 10000. | 352. | 0. | 0. | 0. | 2. | 20. | 56. | 20. | 1. | 0. | 0. | 0. | 0. | | |
| 11000. | 349. | 0. | 0. | 0. | 6. | 41. | 46. | 6. | 0. | 0. | 0. | 0. | 0. | | |
| 12000. | 351. | 0. | 0. | 2. | 18. | 62. | 18. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 13000. | 349. | 0. | 0. | 3. | 41. | 50. | 5. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 14000. | 348. | 0. | 0. | 14. | 66. | 19. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| 15000. | 346. | 0. | 1. | 40. | 55. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | | |
| | | > -45 | > -40 | > -35 | > -30 | > -25 | > -20 | > -15 | > -10 | > -5 | > 0 | > 5 | > 10 | | |
| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | < -45 | < -40 | < -35 | < -30 | < -25 | < -20 | < -15 | < -10 | < -5 | < 0 | < 5 | < 10 | < 15 | |
| 16000. | 347. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 10. | 70. | 20. | 0. | 0. | | |
| 18000. | 344. | 0. | 0. | 0. | 0. | 0. | 0. | 7. | 65. | 28. | 0. | 0. | 0. | | |
| 20000. | 338. | 0. | 0. | 0. | 0. | 0. | 3. | 56. | 41. | 1. | 0. | 0. | 0. | | |
| 25000. | 317. | 0. | 0. | 0. | 0. | 10. | 58. | 30. | 0. | 0. | 0. | 0. | 0. | | |
| 30000. | 297. | 0. | 0. | 25. | 53. | 16. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | | |

TABLE IX (CONT)

JUNE

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | | < -80 | > -80 | > -75 | < -75 | > -70 | < -70 | > -65 | < -65 | > -60 | < -60 | > -55 | < -55 | > -50 | < -50 | > -45 | < -45 | > -40 | < -40 | > -35 | < -35 | > -30 | < -30 | > -25 | < -25 |
| 35000. | 247. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 3. | 3. | 40. | 40. | 49. | 49. | 8. | 8. | 1. | 1. | 0. | 0. | 0. | 0. |
| 40000. | 213. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 40. | 40. | 54. | 54. | 4. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 45000. | 195. | 0. | 0. | 0. | 0. | 4. | 4. | 53. | 53. | 39. | 39. | 4. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 185. | 0. | 0. | 0. | 0. | 5. | 5. | 39. | 39. | 8. | 8. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 169. | 0. | 0. | 0. | 0. | 11. | 11. | 33. | 33. | 2. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 156. | 0. | 0. | 0. | 0. | 0. | 0. | 65. | 65. | 8. | 8. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 137. | 0. | 0. | 0. | 0. | 0. | 0. | 28. | 28. | 71. | 71. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 131. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 80. | 80. | 19. | 19. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 126. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 96. | 96. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 122. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 49. | 49. | 50. | 50. | 1. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 116. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 2. | 90. | 90. | 9. | 9. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 110. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 37. | 37. | 59. | 59. | 3. | 3. | 0. | 0. | 0. | 0. | 0. | 0. |
| 95000. | 97. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 4. | 4. | 79. | 79. | 15. | 15. | 1. | 1. | 0. | 0. | 0. | 0. |
| 100000. | 83. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 30. | 30. | 64. | 64. | 5. | 5. | 0. | 0. | 0. | 0. |

TABLE IX (CONT)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
 AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973

JULY

TEMPERATURE DEGREES CELSIUS

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | < -10 | > -10 < -5 | > -5 < 0 | > 0 < 5 | > 5 < 10 | > 10 < 15 | > 15 < 20 | > 20 < 25 | > 25 < 30 | > 30 < 35 | > 35 < 40 | > 40 < 45 | > 45 |
|-----------------------------------|--------------|-------|---------------|-------------|------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| 4940. | 320. | 0. | 0. | 0. | 0. | 0. | 0. | 8. | 35. | 29. | 22. | 5. | 0. | 0. |
| 5000. | 350. | 0. | 0. | 0. | 0. | 0. | 0. | 6. | 35. | 33. | 20. | 3. | 0. | 0. |
| 6000. | 350. | 0. | 0. | 0. | 0. | 0. | 0. | 21. | 48. | 25. | 5. | 0. | 0. | 0. |
| 7000. | 350. | 0. | 0. | 0. | 0. | 0. | 1. | 39. | 49. | 11. | 0. | 0. | 0. | 0. |
| 8000. | 351. | 0. | 0. | 0. | 0. | 0. | 10. | 58. | 28. | 3. | 0. | 0. | 0. | 0. |
| 9000. | 351. | 0. | 0. | 0. | 0. | 0. | 28. | 62. | 11. | 0. | 0. | 0. | 0. | 0. |
| 10000. | 351. | 0. | 0. | 0. | 0. | 3. | 59. | 36. | 2. | 0. | 0. | 0. | 0. | 0. |
| 11000. | 354. | 0. | 0. | 0. | 1. | 19. | 70. | 10. | 0. | 0. | 0. | 0. | 0. | 0. |
| 12000. | 354. | 0. | 0. | 0. | 2. | 55. | 42. | 1. | 0. | 0. | 0. | 0. | 0. | 0. |
| 13000. | 354. | 0. | 0. | 0. | 7. | 82. | 10. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 354. | 0. | 0. | 0. | 52. | 47. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 353. | 0. | 0. | 3. | 87. | 9. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | < -45 | > -45 < -40 | > -40 < -35 | > -35 < -30 | > -30 < -25 | > -25 < -20 | > -20 < -15 | > -15 < -10 | > -10 < -5 | > -5 < 0 | > 0 < 5 | > 5 < 10 | > 10 |
|-----------------------------------|--------------|-------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|-------------|------------|-------------|------|
| 16000. | 352. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 34. | 66. | 0. | 0. |
| 18000. | 350. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 13. | 87. | 1. | 1. | 0. | 0. |
| 20000. | 345. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 90. | 5. | 5. | 0. | 0. | 0. |
| 25000. | 317. | 0. | 0. | 0. | 0. | 0. | 4. | 82. | 14. | 0. | 0. | 0. | 0. | 0. |
| 30000. | 297. | 0. | 0. | 0. | 9. | 85. | 5. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IX (CONT)

JULY

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | >-80 | | >-75 | | >-70 | | >-65 | | >-60 | | >-55 | | >-50 | | >-45 | | >-40 | | >-35 | | >-30 | | >-25 | |
|-----------------------------------|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | <-80 | <-75 | <-70 | <-65 | <-60 | <-55 | <-50 | <-45 | <-40 | <-35 | <-30 | <-25 | <-80 | <-75 | <-70 | <-65 | <-60 | <-55 | <-50 | <-45 | <-40 | <-35 | <-30 | <-25 |
| 35000. | 261. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 33. | 67. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 40000. | 221. | 0. | 0. | 0. | 0. | 0. | 1. | 23. | 0. | 0. | 0. | 76. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 45000. | 196. | 0. | 0. | 0. | 0. | 85. | 15. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 50000. | 185. | 0. | 0. | 36. | 61. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 55000. | 162. | 0. | 0. | 36. | 62. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 60000. | 153. | 0. | 0. | 1. | 36. | 61. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 65000. | 141. | 0. | 0. | 0. | 0. | 42. | 58. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 70000. | 135. | 0. | 0. | 0. | 0. | 0. | 72. | 0. | 0. | 0. | 0. | 28. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 75000. | 129. | 0. | 0. | 0. | 0. | 0. | 9. | 0. | 0. | 0. | 0. | 90. | 0. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 80000. | 127. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 52. | 0. | 48. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 85000. | 119. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 5. | 0. | 89. | 0. | 6. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 90000. | 113. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 0. | 52. | 0. | 46. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 95000. | 107. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 0. | 11. | 0. | 82. | 6. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 100000. | 97. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 0. | 47. | 51. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |

TABLE IX (CONT)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
 AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973

AUGUST

TEMPERATURE DEGREES CELSIUS

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | | | | | | | | | | | | |
|-----------------------------------|--------------|-------|-------|------|-----|-----|------|------|------|------|------|------|------|
| | | < -10 | > -10 | > -5 | > 0 | > 5 | > 10 | > 15 | > 20 | > 25 | > 30 | > 35 | > 40 |
| 4940. | 355. | 0. | 0. | 0. | 0. | 0. | 0. | 15. | 35. | 30. | 18. | 1. | 0. |
| 5000. | 384. | 0. | 0. | 0. | 0. | 0. | 1. | 17. | 38. | 29. | 15. | 0. | 0. |
| 6000. | 384. | 0. | 0. | 0. | 0. | 0. | 1. | 31. | 44. | 22. | 1. | 0. | 0. |
| 7000. | 385. | 0. | 0. | 0. | 0. | 0. | 4. | 50. | 38. | 8. | 0. | 0. | 0. |
| 8000. | 385. | 0. | 0. | 0. | 0. | 0. | 15. | 62. | 23. | 0. | 0. | 0. | 0. |
| 9000. | 385. | 0. | 0. | 0. | 0. | 1. | 42. | 52. | 5. | 0. | 0. | 0. | 0. |
| 10000. | 384. | 0. | 0. | 0. | 0. | 11. | 65. | 23. | 1. | 0. | 0. | 0. | 0. |
| 11000. | 384. | 0. | 0. | 0. | 1. | 35. | 62. | 3. | 0. | 0. | 0. | 0. | 0. |
| 12000. | 384. | 0. | 0. | 0. | 2. | 72. | 26. | 0. | 0. | 0. | 0. | 0. | 0. |
| 13000. | 385. | 0. | 0. | 0. | 25. | 74. | 1. | 0. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 385. | 0. | 0. | 1. | 69. | 30. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 384. | 0. | 0. | 10. | 88. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | | | | | | | | | | | | |
|-----------------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-----|-----|
| | | < -45 | > -45 | > -40 | > -35 | > -30 | > -25 | > -20 | > -15 | > -10 | > -5 | > 0 | > 5 |
| 16000. | 382. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 55. | 45. | 0. |
| 18000. | 378. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 26. | 73. | 1. | 0. |
| 20000. | 375. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 7. | 90. | 3. | 0. | 0. |
| 25000. | 358. | 0. | 0. | 0. | 0. | 0. | 8. | 85. | 8. | 0. | 0. | 0. | 0. |
| 30000. | 344. | 0. | 0. | 0. | 22. | 75. | 3. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IX (CONT)

AUGUST

| GEOMETRIC ALTITUDE MSL FEET | TOTAL ORS | | | | | | | | | | | | |
|-----------------------------------|--------------|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | <-80 | >-80 <-75 | >-75 <-70 | >-70 <-65 | >-65 <-60 | >-60 <-55 | >-55 <-50 | >-50 <-45 | >-45 <-40 | >-40 <-35 | >-35 <-30 | >-30 <-25 |
| 35000. | 308. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 50. | 49. | 0. | 0. |
| 40000. | 277. | 0. | 0. | 0. | 0. | 0. | 2. | 76. | 22. | 0. | 0. | 0. | 0. |
| 45000. | 242. | 0. | 0. | 0. | 2. | 73. | 26. | 0. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 220. | 0. | 0. | 26. | 66. | 8. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 195. | 0. | 1. | 26. | 65. | 8. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 183. | 0. | 0. | 0. | 31. | 68. | 1. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 175. | 0. | 0. | 0. | 0. | 25. | 75. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 165. | 0. | 0. | 0. | 0. | 0. | 68. | 32. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 158. | 0. | 0. | 0. | 0. | 0. | 9. | 91. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 151. | 0. | 0. | 0. | 0. | 0. | 0. | 68. | 32. | 0. | 0. | 0. | 0. |
| 85000. | 147. | 0. | 0. | 0. | 0. | 0. | 0. | 9. | 90. | 1. | 0. | 0. | 0. |
| 90000. | 131. | 0. | 0. | 0. | 0. | 0. | 0. | 9. | 60. | 39. | 1. | 0. | 0. |
| 95000. | 118. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 15. | 76. | 8. | 0. | 0. |
| 100000. | 102. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 65. | 33. | 0. | 0. |

TABLE IX (CONT)
RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
AT SELECTED LEVELS (IN PER CENT)
STALLION SITE
PERIOD OF RECORD 1961-1973

SEPTEMBER

TEMPERATURE DEGREES CELSIUS

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | < -15 | ≥ -15 < -10 | ≥ -10 < -5 | ≥ -5 < 0 | ≥ 0 < 5 | ≥ 5 < 10 | ≥ 10 < 15 | ≥ 15 < 20 | ≥ 20 < 25 | ≥ 25 < 30 | ≥ 30 < 35 | ≥ 35 < 40 | ≥ 40 |
|-----------------------------------|--------------|-------|----------------|---------------|-------------|------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| 4940. | 322. | 0. | 0. | 0. | 0. | 0. | 1. | 8. | 30. | 30. | 27. | 3. | 0. | 0. |
| 5000. | 364. | 0. | 0. | 0. | 0. | 0. | 1. | 9. | 30. | 32. | 25. | 2. | 0. | 0. |
| 6000. | 363. | 0. | 0. | 0. | 0. | 0. | 1. | 14. | 44. | 37. | 4. | 0. | 0. | 0. |
| 7000. | 364. | 0. | 0. | 0. | 0. | 0. | 4. | 22. | 55. | 18. | 1. | 0. | 0. | 0. |
| 8000. | 364. | 0. | 0. | 0. | 0. | 1. | 7. | 46. | 43. | 3. | 0. | 0. | 0. | 0. |
| 9000. | 365. | 0. | 0. | 0. | 0. | 4. | 15. | 63. | 19. | 0. | 0. | 0. | 0. | 0. |
| 10000. | 364. | 0. | 0. | 0. | 0. | 7. | 36. | 54. | 2. | 0. | 0. | 0. | 0. | 0. |
| 11000. | 363. | 0. | 0. | 0. | 3. | 10. | 67. | 20. | 0. | 0. | 0. | 0. | 0. | 0. |
| 12000. | 363. | 0. | 0. | 0. | 4. | 29. | 65. | 2. | 0. | 0. | 0. | 0. | 0. | 0. |
| 13000. | 363. | 0. | 0. | 1. | 6. | 62. | 31. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 14000. | 363. | 0. | 0. | 3. | 20. | 74. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 362. | 0. | 0. | 4. | 46. | 49. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | < -45 | ≥ -45 < -40 | ≥ -40 < -35 | ≥ -35 < -30 | ≥ -30 < -25 | ≥ -25 < -20 | ≥ -20 < -15 | ≥ -15 < -10 | ≥ -10 < -5 | ≥ -5 < 0 | ≥ 0 < 5 | ≥ 5 < 10 | ≥ 10 |
|-----------------------------------|--------------|-------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|-------------|------------|-------------|------|
| 16000. | 362. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 8. | 77. | 14. | 0. | 0. |
| 18000. | 361. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 4. | 55. | 40. | 0. | 0. | 0. |
| 20000. | 359. | 0. | 0. | 0. | 0. | 0. | 1. | 31. | 65. | 1. | 1. | 0. | 0. | 0. |
| 25000. | 346. | 0. | 0. | 0. | 1. | 3. | 47. | 48. | 1. | 0. | 0. | 0. | 0. | 0. |
| 30000. | 326. | 0. | 1. | 10. | 53. | 37. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |

TABLE IX (CONT)

SEPTEMBER

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | < -80 | | > -80 < -75 | | > -75 < -70 | | > -70 < -65 | | > -65 < -60 | | > -60 < -55 | | > -55 < -50 | | > -50 < -45 | | > -45 < -40 | | > -40 < -35 | | > -35 < -30 | | > -30 < -25 | |
|-----------------------------------|--------------|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------|-------------|-------|-------------|-----|-------------|------|-------------|------|-------------|--|
| | | < -80 | > -80 < -75 | > -75 < -70 | > -70 < -65 | > -65 < -60 | > -60 < -55 | > -55 < -50 | > -50 < -45 | > -45 < -40 | > -40 < -35 | > -35 < -30 | > -30 < -25 | > -25 | > -20 | > -15 | > -10 | > -5 | > 0 | > 5 | > 10 | > 15 | > 20 | > 25 | |
| 35000. | 278. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 19. | 58. | 22. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 40000. | 253. | 0. | 0. | 0. | 0. | 0. | 15. | 67. | 18. | 0. | 0. | 0. | 0. | 0. | 0. | 18. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 45000. | 232. | 0. | 0. | 0. | 0. | 69. | 29. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 50000. | 219. | 0. | 0. | 22. | 60. | 16. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 55000. | 196. | 0. | 1. | 33. | 53. | 12. | 2. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 60000. | 184. | 0. | 0. | 0. | 42. | 53. | 5. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 65000. | 174. | 0. | 0. | 0. | 0. | 51. | 49. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 70000. | 163. | 0. | 0. | 0. | 0. | 4. | 76. | 20. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 75000. | 156. | 0. | 0. | 0. | 0. | 0. | 24. | 73. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 3. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 80000. | 150. | 0. | 0. | 0. | 0. | 0. | 0. | 70. | 30. | 0. | 0. | 0. | 0. | 0. | 0. | 30. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 85000. | 142. | 0. | 0. | 0. | 0. | 0. | 0. | 15. | 83. | 0. | 0. | 0. | 0. | 0. | 0. | 83. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 90000. | 131. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 78. | 0. | 0. | 0. | 0. | 0. | 0. | 78. | 21. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 95000. | 115. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 42. | 0. | 0. | 0. | 0. | 0. | 0. | 42. | 58. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 100000. | 102. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 10. | 0. | 0. | 0. | 0. | 0. | 0. | 10. | 78. | 12. | 0. | 0. | 0. | 0. | 0. | 0. | |

TABLE IX (CONT)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
 AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973

OCTOBER

TEMPERATURE DEGREES CELSIUS

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | | | | | | | | | | | | | | |
|-----------------------------------|--------------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| | | <-20 | >-20 | >-15 | >-10 | >-5 | >0 | >5 | >10 | >15 | >20 | >25 | >30 | >35 | |
| 4940. | 367. | 0. | 0. | 0. | 0. | 0. | 2. | 11. | 23. | 29. | 27. | 8. | 0. | 0. | |
| 5000. | 417. | 0. | 0. | 0. | 0. | 0. | 2. | 12. | 23. | 32. | 24. | 6. | 0. | 0. | |
| 6000. | 417. | 0. | 0. | 0. | 0. | 0. | 2. | 10. | 36. | 39. | 12. | 0. | 0. | 0. | |
| 7000. | 416. | 0. | 0. | 0. | 0. | 1. | 4. | 15. | 46. | 33. | 2. | 0. | 0. | 0. | |
| 8000. | 417. | 0. | 0. | 0. | 0. | 1. | 5. | 26. | 54. | 14. | 0. | 0. | 0. | 0. | |
| 9000. | 418. | 0. | 0. | 0. | 1. | 2. | 8. | 41. | 46. | 1. | 0. | 0. | 0. | 0. | |
| 10000. | 418. | 0. | 0. | 0. | 1. | 4. | 16. | 58. | 21. | 0. | 0. | 0. | 0. | 0. | |
| 11000. | 418. | 0. | 0. | 0. | 1. | 6. | 33. | 58. | 2. | 0. | 0. | 0. | 0. | 0. | |
| 12000. | 418. | 0. | 0. | 1. | 1. | 8. | 62. | 28. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 13000. | 418. | 0. | 0. | 1. | 2. | 19. | 72. | 6. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 14000. | 417. | 0. | 0. | 1. | 3. | 47. | 47. | 1. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 15000. | 416. | 0. | 1. | 1. | 13. | 68. | 17. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | | | | | | | | | | | | | | |
|-----------------------------------|--------------|------|------|------|------|------|------|------|------|------|-----|----|----|-----|--|
| | | <-45 | >-45 | >-40 | >-35 | >-30 | >-25 | >-20 | >-15 | >-10 | >-5 | >0 | >5 | >10 | |
| 16000. | 414. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 30. | 64. | 4. | 0. | 0. | |
| 18000. | 413. | 0. | 0. | 0. | 0. | 0. | 1. | 1. | 18. | 70. | 10. | 0. | 0. | 0. | |
| 20000. | 410. | 0. | 0. | 0. | 0. | 0. | 1. | 13. | 67. | 19. | 0. | 0. | 0. | 0. | |
| 25000. | 388. | 0. | 0. | 0. | 1. | 29. | 61. | 9. | 0. | 0. | 0. | 0. | 0. | 0. | |
| 30000. | 362. | 0. | 6. | 50. | 41. | 4. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | |

TABLE IX (CONT)

OCTOBER

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | < -80 | > -80 < -75 | > -75 < -70 | > -70 < -65 | > -65 < -60 | > -60 < -55 | > -55 < -50 | > -50 < -45 | > -45 < -40 | > -40 < -35 | > -35 < -30 | > -30 < -25 |
|-----------------------------------|--------------|-------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 35000. | 314. | 0. | 0. | 0. | 0. | 0. | 0. | 13. | 57. | 28. | 3. | 0. | 0. |
| 40000. | 288. | 0. | 0. | 0. | 0. | 6. | 45. | 45. | 4. | 0. | 0. | 0. | 0. |
| 45000. | 255. | 0. | 0. | 1. | 9. | 67. | 22. | 0. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 247. | 0. | 0. | 9. | 61. | 29. | 2. | 0. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 219. | 0. | 0. | 26. | 58. | 16. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 210. | 0. | 0. | 2. | 48. | 48. | 2. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 201. | 0. | 0. | 0. | 4. | 67. | 28. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 195. | 0. | 0. | 0. | 0. | 16. | 73. | 11. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 185. | 0. | 0. | 0. | 0. | 0. | 50. | 49. | 1. | 0. | 0. | 0. | 0. |
| 80000. | 175. | 0. | 0. | 0. | 0. | 0. | 10. | 82. | 8. | 0. | 0. | 0. | 0. |
| 85000. | 165. | 0. | 0. | 0. | 0. | 0. | 0. | 57. | 43. | 0. | 0. | 0. | 0. |
| 90000. | 152. | 0. | 0. | 0. | 0. | 0. | 0. | 24. | 72. | 3. | 0. | 0. | 0. |
| 95000. | 134. | 0. | 0. | 0. | 0. | 0. | 0. | 7. | 72. | 20. | 0. | 0. | 0. |
| 100000. | 115. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 47. | 51. | 0. | 0. | 0. |

TABLE IX (CONT)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
 AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973

NOVEMBER

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | TEMPERATURE DEGREES CELSIUS | | | | | | | | | | | |
|-----------------------------------|--------------|-----------------------------|----------------|----------------|----------------|---------------|-------------|------------|-------------|--------------|--------------|--------------|--------------|
| | | < -25 | > -25 < -20 | > -20 < -15 | > -15 < -10 | > -10 < -5 | > -5 < 0 | > 0 < 5 | > 5 < 10 | > 10 < 15 | > 15 < 20 | > 20 < 25 | > 25 < 30 |
| 4940. | 348. | 0. | 0. | 0. | 0. | 0. | 2. | 16. | 22. | 31. | 22. | 6. | 0. |
| 5000. | 408. | 0. | 0. | 0. | 0. | 0. | 1. | 17. | 26. | 28. | 24. | 4. | 0. |
| 6000. | 407. | 0. | 0. | 0. | 0. | 0. | 5. | 16. | 37. | 30. | 12. | 0. | 0. |
| 7000. | 407. | 0. | 0. | 0. | 0. | 0. | 9. | 22. | 35. | 30. | 3. | 0. | 0. |
| 8000. | 408. | 0. | 0. | 0. | 0. | 3. | 11. | 29. | 40. | 18. | 0. | 0. | 0. |
| 9000. | 407. | 0. | 0. | 0. | 0. | 5. | 15. | 30. | 41. | 9. | 0. | 0. | 0. |
| 10000. | 407. | 0. | 0. | 0. | 0. | 9. | 19. | 40. | 29. | 3. | 0. | 0. | 0. |
| 11000. | 407. | 0. | 0. | 0. | 1. | 12. | 25. | 44. | 18. | 0. | 0. | 0. | 0. |
| 12000. | 404. | 0. | 0. | 0. | 4. | 16. | 31. | 42. | 7. | 0. | 0. | 0. | 0. |
| 13000. | 403. | 0. | 0. | 0. | 7. | 17. | 43. | 31. | 1. | 0. | 0. | 0. | 0. |
| 14000. | 403. | 0. | 0. | 1. | 11. | 26. | 45. | 16. | 0. | 0. | 0. | 0. | 0. |
| 15000. | 402. | 0. | 0. | 5. | 12. | 37. | 42. | 4. | 0. | 0. | 0. | 0. | 0. |

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | TEMPERATURE DEGREES CELSIUS | | | | | | | | | | | |
|-----------------------------------|--------------|-----------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|-------------|
| | | < -55 | > -55 < -50 | > -50 < -45 | > -45 < -40 | > -40 < -35 | > -35 < -30 | > -30 < -25 | > -25 < -20 | > -20 < -15 | > -15 < -10 | > -10 < -5 | > -5 < 0 |
| 16000. | 402. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 1. | 7. | 21. | 45. | 27. |
| 18000. | 401. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 6. | 13. | 46. | 33. | 1. |
| 20000. | 390. | 0. | 0. | 0. | 0. | 0. | 0. | 5. | 10. | 47. | 35. | 3. | 0. |
| 25000. | 345. | 0. | 0. | 0. | 0. | 5. | 17. | 49. | 27. | 2. | 0. | 0. | 0. |
| 30000. | 322. | 0. | 0. | 2. | 30. | 48. | 18. | 1. | 0. | 0. | 0. | 0. | 0. |

TABLE IX (CONT)

NOVEMBER

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | | | | | | | | | | | | |
|-----------------------------------|--------------|-------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | | < -85 | > -85 -80 | > -80 -75 | > -75 -70 | > -70 -65 | > -65 -60 | > -60 -55 | > -55 -50 | > -50 -45 | > -45 -40 | > -40 -35 | > -35 -30 |
| 35000. | 293. | 0. | 0. | 0. | 0. | 0. | 3. | 32. | 53. | 12. | 0. | 0. | 0. |
| 40000. | 233. | 0. | 0. | 0. | 1. | 18. | 51. | 25. | 5. | 0. | 0. | 0. | 0. |
| 45000. | 210. | 0. | 0. | 1. | 19. | 46. | 28. | 6. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 193. | 0. | 0. | 6. | 47. | 39. | 6. | 1. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 164. | 0. | 1. | 20. | 48. | 27. | 5. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 152. | 0. | 0. | 7. | 37. | 44. | 12. | 1. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 148. | 0. | 0. | 0. | 12. | 67. | 21. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 143. | 0. | 0. | 0. | 1. | 47. | 50. | 2. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 134. | 0. | 0. | 0. | 0. | 12. | 75. | 13. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 130. | 0. | 0. | 0. | 0. | 2. | 52. | 43. | 4. | 0. | 0. | 0. | 0. |
| 85000. | 123. | 0. | 0. | 0. | 0. | 0. | 27. | 58. | 15. | 1. | 0. | 0. | 0. |
| 90000. | 113. | 0. | 0. | 0. | 0. | 0. | 4. | 55. | 32. | 8. | 1. | 0. | 0. |
| 95000. | 94. | 0. | 0. | 0. | 0. | 0. | 0. | 29. | 50. | 20. | 1. | 0. | 0. |
| 100000. | 74. | 0. | 0. | 0. | 0. | 0. | 1. | 9. | 54. | 28. | 5. | 1. | 0. |

TABLE IX (CONT)
 RELATIVE FREQUENCY DISTRIBUTION OF UPPER AIR TEMPERATURES
 AT SELECTED LEVELS (IN PER CENT)
 STALLION SITE
 PERIOD OF RECORD 1961-1973

DECEMBER

TEMPERATURE DEGREES CELSIUS

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | | | | | | | | | | | | | | |
|-----------------------------------|--------------|-------|----------------|----------------|----------------|----------------|---------------|-------------|------------|-------------|--------------|--------------|--------------|------|--|
| | | < -30 | < -30 < -25 | < -25 < -20 | < -20 < -15 | < -15 < -10 | < -10 < -5 | < -5 < 0 | > 0 < 5 | > 5 < 10 | > 10 < 15 | > 15 < 20 | > 20 < 25 | > 25 | |
| 4940. | 297. | 0. | 0. | 0. | 0. | 0. | 5. | 18. | 25. | 26. | 23. | 4. | 0. | 0. | |
| 5000. | 328. | 0. | 0. | 0. | 0. | 0. | 5. | 16. | 28. | 26. | 22. | 2. | 0. | 0. | |
| 6000. | 329. | 0. | 0. | 0. | 0. | 0. | 1. | 19. | 33. | 39. | 7. | 0. | 0. | 0. | |
| 7000. | 329. | 0. | 0. | 0. | 0. | 0. | 3. | 26. | 33. | 33. | 4. | 0. | 0. | 0. | |
| 8000. | 329. | 0. | 0. | 0. | 0. | 0. | 10. | 23. | 39. | 26. | 2. | 0. | 0. | 0. | |
| 9000. | 329. | 0. | 0. | 0. | 0. | 0. | 15. | 27. | 39. | 19. | 1. | 0. | 0. | 0. | |
| 10000. | 329. | 0. | 0. | 0. | 0. | 2. | 22. | 31. | 36. | 10. | 0. | 0. | 0. | 0. | |
| 11000. | 329. | 0. | 0. | 0. | 0. | 7. | 26. | 33. | 31. | 4. | 0. | 0. | 0. | 0. | |
| 12000. | 329. | 0. | 0. | 0. | 0. | 14. | 26. | 34. | 25. | 1. | 0. | 0. | 0. | 0. | |
| 13000. | 329. | 0. | 0. | 0. | 2. | 21. | 27. | 40. | 10. | 0. | 0. | 0. | 0. | 0. | |
| 14000. | 329. | 0. | 0. | 0. | 7. | 19. | 34. | 36. | 3. | 0. | 0. | 0. | 0. | 0. | |
| 15000. | 328. | 0. | 0. | 1. | 14. | 24. | 38. | 22. | 1. | 0. | 0. | 0. | 0. | 0. | |

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | | | | | | | | | | | | |
|-----------------------------------|--------------|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|
| | | <-60 | >-60 <-55 | >-55 <-50 | >-50 <-45 | >-45 <-40 | >-40 <-35 | >-35 <-30 | >-30 <-25 | >-25 <-20 | >-20 <-15 | >-15 <-10 | >-10 <-5 |
| 16000. | 328. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 4. | 18. | 27. | 45. | 6. |
| 18000. | 326. | 0. | 0. | 0. | 0. | 0. | 0. | 2. | 16. | 26. | 45. | 11. | 0. |
| 20000. | 321. | 0. | 0. | 0. | 0. | 0. | 2. | 12. | 24. | 48. | 14. | 0. | 0. |
| 25000. | 305. | 0. | 0. | 0. | 0. | 1. | 17. | 32. | 44. | 6. | 0. | 0. | 0. |
| 30000. | 273. | 0. | 0. | 0. | 23. | 45. | 30. | 2. | 0. | 0. | 0. | 0. | 0. |

TABLE IX (CONT)

DECEMBER

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBS | >-80 <-80 | >-75 <-75 | >-70 <-70 | >-65 <-65 | >-60 <-60 | >-55 <-55 | >-50 <-50 | >-45 <-45 | >-40 <-40 | >-35 <-35 | >-30 <-30 | >-25 <-25 |
|-----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 35000. | 242. | 0. | 0. | 0. | 0. | 12. | 62. | 22. | 3. | 0. | 0. | 0. | 0. |
| 40000. | 216. | 0. | 0. | 5. | 20. | 39. | 27. | 8. | 0. | 0. | 0. | 0. | 0. |
| 45000. | 187. | 0. | 0. | 6. | 39. | 45. | 10. | 0. | 0. | 0. | 0. | 0. | 0. |
| 50000. | 175. | 0. | 0. | 25. | 57. | 18. | 1. | 0. | 0. | 0. | 0. | 0. | 0. |
| 55000. | 153. | 0. | 0. | 41. | 39. | 12. | 2. | 0. | 0. | 0. | 0. | 0. | 0. |
| 60000. | 149. | 0. | 0. | 40. | 44. | 13. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| 65000. | 146. | 0. | 0. | 19. | 66. | 13. | 1. | 0. | 0. | 0. | 0. | 0. | 0. |
| 70000. | 138. | 0. | 0. | 2. | 51. | 43. | 4. | 0. | 0. | 0. | 0. | 0. | 0. |
| 75000. | 136. | 0. | 0. | 0. | 35. | 54. | 11. | 0. | 0. | 0. | 0. | 0. | 0. |
| 80000. | 132. | 0. | 0. | 0. | 9. | 62. | 29. | 0. | 0. | 0. | 0. | 0. | 0. |
| 85000. | 126. | 0. | 0. | 0. | 6. | 40. | 47. | 6. | 0. | 0. | 0. | 0. | 0. |
| 90000. | 120. | 0. | 0. | 0. | 1. | 29. | 52. | 16. | 3. | 0. | 0. | 0. | 0. |
| 95000. | 113. | 0. | 0. | 0. | 0. | 18. | 41. | 32. | 8. | 1. | 0. | 0. | 0. |
| 100000. | 92. | 0. | 0. | 0. | 0. | 4. | 32. | 41. | 22. | 0. | 1. | 0. | 0. |

TABLE X
MEAN AND EXTREME UPPER AIR TEMPERATURES (DEGREES CELSIUS)
AT SELECTED LEVELS BY SEASONS
STALLION SITE
PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | WINTER | | | |
|--------------------------------|-----------------------|---------|------|---------|
| | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
| 4940. | 1013. | 25. | 6. | -22. |
| 5000. | 1218. | 24. | 6. | -21. |
| 6000. | 1220. | 21. | 4. | -17. |
| 7000. | 1219. | 18. | 3. | -17. |
| 8000. | 1216. | 15. | 2. | -19. |
| 9000. | 1217. | 12. | 0. | -20. |
| 10000. | 1216. | 10. | -2. | -20. |
| 11000. | 1217. | 9. | -3. | -21. |
| 12000. | 1216. | 6. | -5. | -23. |
| 13000. | 1215. | 5. | -7. | -25. |
| 14000. | 1213. | 3. | -8. | -27. |
| 15000. | 1208. | 1. | -10. | -29. |
| 16000. | 1208. | 0. | -12. | -31. |
| 18000. | 1199. | -5. | -16. | -36. |
| 20000. | 1165. | -9. | -21. | -40. |
| 25000. | 1074. | -21. | -32. | -47. |
| 30000. | 982. | -32. | -43. | -54. |
| 35000. | 859. | -33. | -53. | -61. |
| 40000. | 779. | -42. | -57. | -69. |
| 45000. | 693. | -48. | -58. | -76. |
| 50000. | 613. | -52. | -62. | -73. |
| 55000. | 519. | -52. | -65. | -78. |
| 60000. | 484. | -54. | -64. | -79. |
| 65000. | 451. | -53. | -63. | -75. |
| 70000. | 411. | -51. | -60. | -69. |
| 75000. | 391. | -50. | -58. | -69. |
| 80000. | 361. | -47. | -56. | -65. |
| 85000. | 346. | -46. | -54. | -66. |
| 90000. | 320. | -42. | -52. | -64. |
| 95000. | 301. | -39. | -50. | -60. |
| 100000. | 236. | -32. | -47. | -59. |

TABLE X (CONT)
 MEAN AND EXTREME UPPER AIR TEMPERATURES (DEGREES CELSIUS)
 AT SELECTED LEVELS BY SEASONS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | SPRING | | | |
|--------------------------------|-----------------------|---------|------|---------|
| | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
| 4940. | 1218. | 33. | 16. | -9. |
| 5000. | 1478. | 33. | 15. | -9. |
| 6000. | 1479. | 30. | 12. | -9. |
| 7000. | 1478. | 26. | 10. | -11. |
| 8000. | 1475. | 23. | 7. | -13. |
| 9000. | 1476. | 20. | 5. | -16. |
| 10000. | 1475. | 16. | 3. | -17. |
| 11000. | 1468. | 14. | 1. | -19. |
| 12000. | 1464. | 10. | -2. | -22. |
| 13000. | 1462. | 7. | -4. | -24. |
| 14000. | 1458. | 5. | -6. | -27. |
| 15000. | 1455. | 4. | -8. | -29. |
| 16000. | 1453. | 1. | -10. | -30. |
| 18000. | 1442. | -4. | -15. | -35. |
| 20000. | 1399. | -9. | -19. | -39. |
| 25000. | 1293. | -19. | -30. | -45. |
| 30000. | 1194. | -31. | -41. | -54. |
| 35000. | 953. | -40. | -51. | -61. |
| 40000. | 788. | -43. | -57. | -68. |
| 45000. | 724. | -48. | -58. | -72. |
| 50000. | 646. | -49. | -61. | -71. |
| 55000. | 538. | -49. | -63. | -74. |
| 60000. | 485. | -52. | -62. | -73. |
| 65000. | 440. | -54. | -60. | -69. |
| 70000. | 409. | -52. | -57. | -64. |
| 75000. | 381. | -50. | -55. | -63. |
| 80000. | 354. | -47. | -52. | -60. |
| 85000. | 335. | -42. | -50. | -58. |
| 90000. | 312. | -40. | -47. | -56. |
| 95000. | 276. | -35. | -44. | -54. |
| 100000. | 210. | -32. | -42. | -51. |

TABLE X (CONT)
 MEAN AND EXTREME UPPER AIR TEMPERATURES (DEGREES CELSIUS)
 AT SELECTED LEVELS BY SEASONS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | SUMMER | | | |
|--------------------------------|-----------------------|---------|------|---------|
| | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
| 4940. | 995. | 38. | 25. | 12. |
| 5000. | 1085. | 38. | 25. | 12. |
| 6000. | 1086. | 34. | 22. | 13. |
| 7000. | 1086. | 30. | 20. | 10. |
| 8000. | 1088. | 27. | 18. | 8. |
| 9000. | 1087. | 24. | 15. | 6. |
| 10000. | 1087. | 21. | 13. | 3. |
| 11000. | 1087. | 18. | 11. | 0. |
| 12000. | 1089. | 16. | 8. | -3. |
| 13000. | 1088. | 13. | 6. | -5. |
| 14000. | 1087. | 10. | 4. | -6. |
| 15000. | 1083. | 8. | 2. | -8. |
| 16000. | 1081. | 5. | -1. | -9. |
| 18000. | 1072. | 2. | -5. | -13. |
| 20000. | 1058. | -3. | -9. | -17. |
| 25000. | 992. | -10. | -19. | -28. |
| 30000. | 938. | -22. | -30. | -40. |
| 35000. | 816. | -34. | -41. | -51. |
| 40000. | 711. | -45. | -52. | -63. |
| 45000. | 633. | -53. | -61. | -68. |
| 50000. | 590. | -58. | -68. | -74. |
| 55000. | 526. | -58. | -68. | -76. |
| 60000. | 492. | -58. | -64. | -71. |
| 65000. | 453. | -55. | -60. | -65. |
| 70000. | 431. | -51. | -56. | -60. |
| 75000. | 413. | -49. | -53. | -57. |
| 80000. | 400. | -45. | -50. | -55. |
| 85000. | 382. | -42. | -48. | -52. |
| 90000. | 354. | -36. | -45. | -51. |
| 95000. | 322. | -35. | -43. | -51. |
| 100000. | 282. | -31. | -40. | -48. |

TABLE X (CONT)
 MEAN AND EXTREME UPPER AIR TEMPERATURES (DEGREES CELSIUS)
 AT SELECTED LEVELS BY SEASONS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | FALL | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 1037. | 33. | 16. | -3. |
| 5000. | 1189. | 33. | 16. | -3. |
| 6000. | 1187. | 29. | 14. | -5. |
| 7000. | 1187. | 26. | 12. | -6. |
| 8000. | 1189. | 23. | 10. | -8. |
| 9000. | 1190. | 20. | 8. | -10. |
| 10000. | 1189. | 17. | 6. | -12. |
| 11000. | 1188. | 14. | 4. | -13. |
| 12000. | 1185. | 11. | 2. | -15. |
| 13000. | 1184. | 9. | 1. | -16. |
| 14000. | 1183. | 7. | -1. | -18. |
| 15000. | 1180. | 5. | -3. | -20. |
| 16000. | 1178. | 3. | -5. | -21. |
| 17000. | 1175. | 0. | -9. | -25. |
| 20000. | 1159. | -4. | -13. | -29. |
| 25000. | 1079. | -15. | -24. | -40. |
| 30000. | 1010. | -25. | -35. | -47. |
| 35000. | 885. | -37. | -46. | -59. |
| 40000. | 774. | -47. | -55. | -66. |
| 45000. | 697. | -50. | -62. | -71. |
| 50000. | 659. | -53. | -67. | -77. |
| 55000. | 579. | -57. | -68. | -78. |
| 60000. | 546. | -55. | -65. | -73. |
| 65000. | 523. | -54. | -61. | -70. |
| 70000. | 501. | -51. | -58. | -66. |
| 75000. | 475. | -49. | -56. | -62. |
| 80000. | 455. | -47. | -53. | -61. |
| 85000. | 430. | -44. | -51. | -59. |
| 90000. | 396. | -38. | -48. | -58. |
| 95000. | 343. | -40. | -47. | -55. |
| 100000. | 291. | -33. | -44. | -56. |

ATMOSPHERIC STRUCTURE REPORT

STALLION SITE

SECTION I

UPPER AIR PRESSURE DATA

By Months

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Table XI. Mean and Extreme Upper Air
Pressures (Millibars) at
Selected Levels -----

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By Seasons

Table XII. Mean and Extreme Upper Air
Pressures (Millibars) at
Selected Levels -----

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TABLE XI
MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY MONTHS
STALLION SITE
PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | JANUARY | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4440. | 350. | 863. | 851. | 835. |
| 5000. | 418. | 862. | 848. | 833. |
| 6000. | 419. | 829. | 817. | 803. |
| 7000. | 419. | 798. | 787. | 773. |
| 8000. | 419. | 769. | 758. | 743. |
| 9000. | 420. | 741. | 730. | 715. |
| 10000. | 420. | 714. | 703. | 688. |
| 11000. | 421. | 687. | 676. | 661. |
| 12000. | 421. | 662. | 651. | 635. |
| 13000. | 421. | 637. | 626. | 610. |
| 14000. | 420. | 613. | 602. | 586. |
| 15000. | 418. | 590. | 579. | 563. |
| 16000. | 417. | 567. | 556. | 540. |
| 18000. | 412. | 524. | 513. | 496. |
| 20000. | 395. | 484. | 473. | 455. |
| 25000. | 362. | 395. | 383. | 364. |
| 30000. | 338. | 319. | 307. | 290. |
| 35000. | 300. | 255. | 244. | 230. |
| 40000. | 276. | 202. | 192. | 182. |
| 45000. | 248. | 158. | 151. | 143. |
| 50000. | 213. | 123. | 119. | 112. |
| 55000. | 179. | 96. | 93. | 87. |
| 60000. | 164. | 75. | 72. | 68. |
| 65000. | 154. | 58. | 56. | 53. |
| 70000. | 146. | 45.5 | 44.0 | 41.5 |
| 75000. | 139. | 36.0 | 34.5 | 32.5 |
| 80000. | 124. | 28.5 | 27.5 | 25.5 |
| 85000. | 117. | 22.5 | 21.5 | 21.0 |
| 90000. | 103. | 17.7 | 17.1 | 16.3 |
| 95000. | 97. | 14.1 | 13.5 | 12.8 |
| 100000. | 75. | 11.3 | 10.8 | 10.2 |

TABLE XI (CONT)
 MEAN AND EXTREME UPPER AIR PRESSURES (MILLIHARS)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | FEBRUARY | | |
|--------------------------------|-----------------------|----------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 366. | 862. | 849. | 836. |
| 5000. | 474. | 860. | 847. | 833. |
| 6000. | 474. | 828. | 816. | 803. |
| 7000. | 474. | 798. | 786. | 773. |
| 8000. | 471. | 768. | 757. | 744. |
| 9000. | 471. | 739. | 729. | 715. |
| 10000. | 471. | 713. | 702. | 688. |
| 11000. | 469. | 687. | 675. | 661. |
| 12000. | 468. | 661. | 649. | 635. |
| 13000. | 468. | 637. | 625. | 610. |
| 14000. | 466. | 613. | 601. | 585. |
| 15000. | 464. | 590. | 577. | 562. |
| 16000. | 466. | 568. | 555. | 539. |
| 18000. | 463. | 525. | 512. | 494. |
| 20000. | 451. | 485. | 471. | 452. |
| 25000. | 410. | 396. | 382. | 362. |
| 30000. | 371. | 320. | 306. | 288. |
| 35000. | 320. | 256. | 243. | 229. |
| 40000. | 289. | 204. | 191. | 181. |
| 45000. | 258. | 160. | 151. | 144. |
| 50000. | 226. | 125. | 118. | 114. |
| 55000. | 187. | 98. | 93. | 90. |
| 60000. | 171. | 76. | 72. | 70. |
| 65000. | 154. | 59. | 56. | 55. |
| 70000. | 128. | 46.5 | 44.5 | 42.5 |
| 75000. | 119. | 36.5 | 35.0 | 33.0 |
| 80000. | 109. | 28.5 | 27.5 | 26.0 |
| 85000. | 106. | 22.5 | 21.5 | 20.5 |
| 90000. | 99. | 18.1 | 17.1 | 16.2 |
| 95000. | 93. | 14.3 | 13.6 | 12.8 |
| 100000. | 71. | 11.4 | 10.9 | 10.3 |

TABLE XI (CONT)
 MEAN AND EXTREME UPPER AIR PRESSURES (MILLIMARS)
 AT SELECTED LEVELS BY MONTHS
 STATION, SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MARCH | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 389. | 860. | 847. | 835. |
| 5000. | 484. | 858. | 845. | 832. |
| 6000. | 485. | 827. | 815. | 800. |
| 7000. | 485. | 798. | 785. | 770. |
| 8000. | 484. | 769. | 756. | 740. |
| 9000. | 483. | 742. | 728. | 712. |
| 10000. | 482. | 715. | 701. | 685. |
| 11000. | 479. | 688. | 674. | 658. |
| 12000. | 479. | 663. | 649. | 631. |
| 13000. | 479. | 638. | 624. | 606. |
| 14000. | 477. | 614. | 600. | 581. |
| 15000. | 476. | 591. | 577. | 558. |
| 16000. | 476. | 568. | 554. | 534. |
| 18000. | 474. | 526. | 511. | 491. |
| 20000. | 465. | 485. | 471. | 450. |
| 25000. | 418. | 396. | 381. | 359. |
| 30000. | 378. | 320. | 305. | 286. |
| 35000. | 313. | 256. | 243. | 228. |
| 40000. | 253. | 202. | 191. | 181. |
| 45000. | 232. | 158. | 151. | 144. |
| 50000. | 202. | 123. | 118. | 113. |
| 55000. | 168. | 96. | 93. | 89. |
| 60000. | 147. | 76. | 73. | 69. |
| 65000. | 130. | 61. | 57. | 54. |
| 70000. | 123. | 48.0 | 44.5 | 42.5 |
| 75000. | 112. | 38.0 | 35.0 | 33.5 |
| 80000. | 104. | 30.0 | 28.0 | 26.5 |
| 85000. | 99. | 23.5 | 22.0 | 21.0 |
| 90000. | 88. | 18.6 | 17.4 | 16.5 |
| 95000. | 81. | 14.8 | 13.9 | 13.1 |
| 100000. | 62. | 11.8 | 11.1 | 10.4 |

TABLE XI (CONT)
 DEPT. AND EXPLOSIVE UPPER AIR PRESSURES (MILLIBARS)
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973
 APRIL

| GEOGRAPHIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|---------------------------------|-----------------------|---------|------|---------|
| 4940. | 416. | 862. | 849. | 825. |
| 5000. | 533. | 860. | 840. | 823. |
| 6000. | 534. | 828. | 816. | 794. |
| 7000. | 532. | 798. | 787. | 765. |
| 8000. | 531. | 769. | 758. | 738. |
| 9000. | 532. | 741. | 731. | 710. |
| 10000. | 533. | 714. | 704. | 684. |
| 11000. | 532. | 688. | 678. | 658. |
| 12000. | 532. | 663. | 652. | 633. |
| 13000. | 531. | 638. | 628. | 609. |
| 14000. | 532. | 615. | 604. | 586. |
| 15000. | 532. | 592. | 581. | 563. |
| 16000. | 531. | 569. | 558. | 541. |
| 18000. | 525. | 527. | 516. | 497. |
| 20000. | 501. | 486. | 475. | 456. |
| 25000. | 458. | 396. | 386. | 367. |
| 30000. | 432. | 320. | 310. | 294. |
| 35000. | 336. | 256. | 247. | 234. |
| 40000. | 275. | 202. | 194. | 186. |
| 45000. | 244. | 160. | 153. | 147. |
| 50000. | 222. | 125. | 120. | 115. |
| 55000. | 188. | 97. | 94. | 90. |
| 60000. | 169. | 75. | 73. | 70. |
| 65000. | 158. | 59. | 57. | 55. |
| 70000. | 146. | 46.5 | 45.0 | 43.0 |
| 75000. | 139. | 36.5 | 35.5 | 34.0 |
| 80000. | 125. | 29.0 | 28.0 | 27.0 |
| 85000. | 116. | 23.0 | 22.5 | 21.0 |
| 90000. | 110. | 18.4 | 17.7 | 16.6 |
| 95000. | 98. | 14.7 | 14.2 | 13.4 |
| 100000. | 75. | 11.7 | 11.3 | 10.7 |

TABLE XI (CONT)
 MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
 AT SELECTED LEVELS BY MONTHS
 STATION SIFE
 PERIOD OF RECORD 1961-1973

| GEOGRAPHIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MAY | |
|---------------------------------|-----------------------|---------|------|---------|
| | | | MEAN | MINIMUM |
| 4940. | 412. | 861. | 849. | 838. |
| 5000. | 461. | 859. | 847. | 837. |
| 6000. | 462. | 828. | 817. | 807. |
| 7000. | 461. | 797. | 788. | 778. |
| 8000. | 462. | 769. | 760. | 750. |
| 9000. | 461. | 741. | 733. | 722. |
| 10000. | 462. | 715. | 707. | 695. |
| 11000. | 458. | 689. | 681. | 669. |
| 12000. | 457. | 663. | 656. | 644. |
| 13000. | 454. | 639. | 631. | 619. |
| 14000. | 453. | 615. | 608. | 595. |
| 15000. | 450. | 592. | 585. | 572. |
| 16000. | 449. | 570. | 563. | 549. |
| 18000. | 445. | 528. | 520. | 505. |
| 20000. | 435. | 488. | 480. | 465. |
| 25000. | 419. | 399. | 391. | 376. |
| 30000. | 386. | 323. | 315. | 301. |
| 35000. | 309. | 258. | 252. | 240. |
| 40000. | 265. | 205. | 198. | 191. |
| 45000. | 250. | 161. | 156. | 149. |
| 50000. | 224. | 127. | 122. | 116. |
| 55000. | 183. | 100. | 95. | 91. |
| 60000. | 170. | 78. | 75. | 71. |
| 65000. | 151. | 60. | 58. | 56. |
| 70000. | 139. | 47.0 | 46.0 | 45.0 |
| 75000. | 130. | 37.0 | 36.0 | 35.5 |
| 80000. | 128. | 29.5 | 28.5 | 28.0 |
| 85000. | 119. | 23.5 | 23.0 | 22.0 |
| 90000. | 113. | 18.7 | 18.1 | 17.6 |
| 95000. | 97. | 15.0 | 14.5 | 14.0 |
| 100000. | 74. | 12.0 | 11.6 | 11.2 |

TABLE XI (CONT)
 MEAN AND EXTREME UPPER AIR PRESSURES (MILLIHARS)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | JUNE | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 320. | 860. | 849. | 838. |
| 5000. | 351. | 858. | 847. | 836. |
| 6000. | 352. | 828. | 818. | 808. |
| 7000. | 351. | 799. | 789. | 780. |
| 8000. | 352. | 771. | 762. | 752. |
| 9000. | 351. | 743. | 735. | 725. |
| 10000. | 352. | 717. | 709. | 699. |
| 11000. | 349. | 691. | 683. | 673. |
| 12000. | 351. | 666. | 659. | 647. |
| 13000. | 349. | 642. | 635. | 623. |
| 14000. | 348. | 618. | 611. | 599. |
| 15000. | 346. | 596. | 589. | 576. |
| 16000. | 347. | 574. | 567. | 554. |
| 18000. | 344. | 532. | 525. | 512. |
| 20000. | 338. | 492. | 485. | 473. |
| 25000. | 317. | 403. | 396. | 385. |
| 30000. | 297. | 330. | 321. | 306. |
| 35000. | 247. | 267. | 257. | 250. |
| 40000. | 213. | 214. | 204. | 197. |
| 45000. | 196. | 169. | 160. | 155. |
| 50000. | 185. | 133. | 125. | 122. |
| 55000. | 169. | 103. | 98. | 95. |
| 60000. | 156. | 80. | 76. | 74. |
| 65000. | 137. | 63. | 60. | 58. |
| 70000. | 131. | 49.5 | 47.0 | 45.5 |
| 75000. | 126. | 39.0 | 37.0 | 36.0 |
| 80000. | 122. | 31.0 | 29.5 | 28.5 |
| 85000. | 116. | 24.5 | 23.5 | 22.5 |
| 90000. | 110. | 19.7 | 18.5 | 17.8 |
| 95000. | 97. | 15.8 | 14.9 | 14.1 |
| 100000. | 83. | 12.7 | 11.9 | 11.3 |

TABLE XI (CONT)
 MEAN AND EXTREME UPPER AIR PRESSURES (MILLIHARS)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GLOMERIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | JULY | | |
|-------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 321. | 859. | 852. | 842. |
| 5000. | 350. | 857. | 850. | 840. |
| 6000. | 350. | 827. | 821. | 812. |
| 7000. | 350. | 798. | 793. | 785. |
| 8000. | 351. | 770. | 765. | 758. |
| 9000. | 351. | 742. | 738. | 732. |
| 10000. | 351. | 716. | 712. | 707. |
| 11000. | 354. | 691. | 687. | 681. |
| 12000. | 354. | 666. | 662. | 657. |
| 13000. | 354. | 643. | 638. | 633. |
| 14000. | 354. | 619. | 615. | 610. |
| 15000. | 353. | 597. | 592. | 587. |
| 16000. | 352. | 575. | 571. | 565. |
| 16000. | 350. | 533. | 529. | 523. |
| 20000. | 345. | 494. | 489. | 484. |
| 25000. | 317. | 406. | 401. | 396. |
| 30000. | 299. | 331. | 326. | 321. |
| 35000. | 263. | 267. | 263. | 258. |
| 40000. | 221. | 213. | 209. | 205. |
| 45000. | 197. | 168. | 164. | 162. |
| 50000. | 185. | 131. | 128. | 126. |
| 55000. | 162. | 102. | 99. | 98. |
| 60000. | 153. | 79. | 77. | 76. |
| 65000. | 141. | 62. | 61. | 59. |
| 70000. | 135. | 48.5 | 47.5 | 46.0 |
| 75000. | 129. | 38.5 | 37.5 | 36.5 |
| 80000. | 127. | 30.5 | 30.0 | 28.5 |
| 85000. | 119. | 24.0 | 23.5 | 23.0 |
| 90000. | 113. | 19.3 | 18.8 | 18.1 |
| 95000. | 107. | 15.4 | 15.0 | 14.4 |
| 100000. | 97. | 12.3 | 12.0 | 11.5 |

TABLE XI (CONT)
 MEAN AND EXTREME UPPER AIR PRESSURES (MILLIHARS)
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | AUGUST | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 356. | 858. | 852. | 842. |
| 5000. | 384. | 857. | 850. | 840. |
| 6000. | 384. | 827. | 821. | 812. |
| 7000. | 385. | 798. | 792. | 784. |
| 8000. | 385. | 770. | 765. | 756. |
| 9000. | 385. | 743. | 738. | 729. |
| 10000. | 384. | 717. | 712. | 703. |
| 11000. | 384. | 692. | 686. | 678. |
| 12000. | 384. | 667. | 662. | 653. |
| 13000. | 385. | 643. | 638. | 629. |
| 14000. | 385. | 620. | 614. | 603. |
| 15000. | 384. | 597. | 592. | 580. |
| 16000. | 382. | 575. | 570. | 559. |
| 18000. | 378. | 533. | 528. | 518. |
| 20000. | 375. | 494. | 488. | 479. |
| 25000. | 359. | 406. | 400. | 392. |
| 30000. | 345. | 331. | 325. | 318. |
| 35000. | 308. | 267. | 262. | 255. |
| 40000. | 277. | 213. | 208. | 202. |
| 45000. | 242. | 168. | 164. | 159. |
| 50000. | 220. | 130. | 128. | 124. |
| 55000. | 195. | 101. | 99. | 97. |
| 60000. | 184. | 79. | 77. | 75. |
| 65000. | 176. | 62. | 60. | 59. |
| 70000. | 165. | 49.0 | 47.5 | 46.0 |
| 75000. | 158. | 38.5 | 37.5 | 36.5 |
| 80000. | 151. | 30.5 | 29.5 | 29.0 |
| 85000. | 147. | 24.5 | 23.5 | 23.0 |
| 90000. | 131. | 19.5 | 18.8 | 18.1 |
| 95000. | 118. | 15.6 | 15.0 | 14.4 |
| 100000. | 102. | 12.5 | 12.0 | 11.5 |

TABLE XI (CONT)
 MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973
 SEPTEMBER

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|------|---------|
| 4940. | 323. | 859. | 850. | 840. |
| 5000. | 365. | 857. | 849. | 838. |
| 6000. | 364. | 828. | 819. | 809. |
| 7000. | 365. | 799. | 790. | 781. |
| 8000. | 365. | 770. | 763. | 753. |
| 9000. | 366. | 743. | 735. | 726. |
| 10000. | 365. | 716. | 709. | 699. |
| 11000. | 364. | 691. | 684. | 673. |
| 12000. | 364. | 666. | 659. | 648. |
| 13000. | 364. | 642. | 635. | 624. |
| 14000. | 364. | 619. | 611. | 600. |
| 15000. | 363. | 596. | 588. | 577. |
| 16000. | 363. | 574. | 566. | 555. |
| 18000. | 362. | 532. | 524. | 512. |
| 20000. | 360. | 492. | 485. | 472. |
| 25000. | 340. | 403. | 397. | 384. |
| 30000. | 326. | 327. | 321. | 309. |
| 35000. | 276. | 264. | 258. | 246. |
| 40000. | 253. | 210. | 205. | 196. |
| 45000. | 233. | 166. | 161. | 155. |
| 50000. | 220. | 129. | 126. | 122. |
| 55000. | 197. | 100. | 98. | 95. |
| 60000. | 184. | 78. | 76. | 73. |
| 65000. | 174. | 61. | 59. | 57. |
| 70000. | 163. | 48.0 | 47.0 | 44.5 |
| 75000. | 156. | 38.0 | 37.0 | 36.0 |
| 80000. | 150. | 30.0 | 29.0 | 28.5 |
| 85000. | 142. | 24.0 | 23.0 | 22.5 |
| 90000. | 131. | 19.0 | 18.4 | 17.9 |
| 95000. | 115. | 15.1 | 14.7 | 14.3 |
| 100000. | 102. | 12.1 | 11.7 | 11.4 |

TABLE XI (CONT)
MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY MONTHS
STALLION SITE
PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|------|---------|
| 4940. | 367. | 862. | 852. | 838. |
| 5000. | 417. | 860. | 850. | 836. |
| 6000. | 417. | 829. | 820. | 807. |
| 7000. | 410. | 800. | 790. | 778. |
| 8000. | 417. | 771. | 762. | 750. |
| 9000. | 418. | 744. | 735. | 723. |
| 10000. | 418. | 718. | 708. | 695. |
| 11000. | 418. | 692. | 682. | 668. |
| 12000. | 418. | 667. | 657. | 642. |
| 13000. | 418. | 643. | 633. | 617. |
| 14000. | 417. | 619. | 609. | 593. |
| 15000. | 416. | 596. | 587. | 570. |
| 16000. | 414. | 574. | 564. | 547. |
| 17000. | 413. | 531. | 522. | 504. |
| 20000. | 410. | 491. | 482. | 464. |
| 25000. | 384. | 402. | 394. | 374. |
| 30000. | 363. | 327. | 318. | 301. |
| 35000. | 315. | 263. | 254. | 241. |
| 40000. | 288. | 209. | 201. | 192. |
| 45000. | 256. | 164. | 158. | 153. |
| 50000. | 248. | 128. | 123. | 119. |
| 55000. | 221. | 100. | 96. | 93. |
| 60000. | 213. | 77. | 75. | 73. |
| 65000. | 202. | 60. | 58. | 57. |
| 70000. | 190. | 47.0 | 46.0 | 44.5 |
| 75000. | 186. | 37.0 | 36.0 | 35.0 |
| 80000. | 176. | 29.5 | 28.5 | 27.5 |
| 85000. | 166. | 23.5 | 22.5 | 22.0 |
| 90000. | 153. | 18.6 | 17.9 | 17.4 |
| 95000. | 135. | 14.7 | 14.3 | 13.8 |
| 100000. | 116. | 11.8 | 11.4 | 10.9 |

TABLE XI (CONT)
 MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

NOVEMBER

| GEOGRAPHIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|---------------------------------|-----------------------|---------|------|---------|
| 4940. | 348. | 865. | 851. | 835. |
| 5000. | 408. | 863. | 849. | 833. |
| 6000. | 407. | 831. | 818. | 802. |
| 7000. | 407. | 799. | 789. | 773. |
| 8000. | 408. | 769. | 760. | 744. |
| 9000. | 407. | 741. | 732. | 716. |
| 10000. | 407. | 714. | 705. | 689. |
| 11000. | 408. | 688. | 679. | 662. |
| 12000. | 405. | 663. | 653. | 637. |
| 13000. | 404. | 639. | 629. | 612. |
| 14000. | 404. | 615. | 605. | 588. |
| 15000. | 403. | 593. | 582. | 565. |
| 16000. | 403. | 570. | 560. | 542. |
| 18000. | 402. | 529. | 517. | 499. |
| 20000. | 392. | 489. | 477. | 459. |
| 25000. | 345. | 402. | 368. | 371. |
| 30000. | 321. | 326. | 313. | 298. |
| 35000. | 293. | 263. | 250. | 236. |
| 40000. | 233. | 209. | 197. | 187. |
| 45000. | 209. | 164. | 155. | 148. |
| 50000. | 192. | 129. | 121. | 116. |
| 55000. | 163. | 97. | 94. | 91. |
| 60000. | 151. | 75. | 73. | 71. |
| 65000. | 147. | 58. | 57. | 55. |
| 70000. | 142. | 46.0 | 45.0 | 43.0 |
| 75000. | 134. | 36.0 | 35.5 | 34.0 |
| 80000. | 130. | 28.5 | 28.0 | 26.5 |
| 85000. | 123. | 22.5 | 22.0 | 21.0 |
| 90000. | 113. | 17.9 | 17.4 | 16.6 |
| 95000. | 94. | 14.3 | 13.8 | 13.2 |
| 100000. | 74. | 11.4 | 11.0 | 10.5 |

TABLE XI (CONT)
 MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | DECEMBER | | |
|--------------------------------|-----------------------|----------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 297. | 863. | 849. | 836. |
| 5000. | 328. | 861. | 848. | 834. |
| 6000. | 329. | 829. | 817. | 804. |
| 7000. | 329. | 798. | 787. | 774. |
| 8000. | 329. | 768. | 757. | 745. |
| 9000. | 329. | 739. | 729. | 716. |
| 10000. | 329. | 712. | 702. | 689. |
| 11000. | 329. | 686. | 676. | 662. |
| 12000. | 329. | 660. | 650. | 636. |
| 13000. | 329. | 636. | 625. | 611. |
| 14000. | 329. | 612. | 601. | 586. |
| 15000. | 328. | 589. | 578. | 563. |
| 16000. | 328. | 567. | 556. | 540. |
| 16000. | 320. | 524. | 513. | 497. |
| 20000. | 321. | 484. | 473. | 457. |
| 25000. | 305. | 396. | 384. | 367. |
| 30000. | 274. | 320. | 308. | 294. |
| 35000. | 243. | 256. | 245. | 234. |
| 40000. | 216. | 203. | 193. | 185. |
| 45000. | 148. | 159. | 152. | 146. |
| 50000. | 176. | 124. | 119. | 115. |
| 55000. | 154. | 97. | 93. | 89. |
| 60000. | 151. | 75. | 72. | 70. |
| 65000. | 146. | 58. | 57. | 55. |
| 70000. | 138. | 45.5 | 44.5 | 43.5 |
| 75000. | 136. | 35.5 | 34.5 | 34.0 |
| 80000. | 132. | 28.0 | 27.5 | 26.5 |
| 85000. | 126. | 22.5 | 21.5 | 21.0 |
| 90000. | 121. | 17.7 | 17.0 | 16.3 |
| 95000. | 114. | 14.0 | 13.5 | 12.8 |
| 100000. | 92. | 11.2 | 10.7 | 10.0 |

TABLE XII
MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
AT SELECTED LEVELS BY SEASONS
STATION SITE
PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|------|---------|
| | | | | |
| 4940. | 1013. | 863. | 850. | 835. |
| 5000. | 1220. | 862. | 848. | 833. |
| 6000. | 1222. | 829. | 817. | 803. |
| 7000. | 1222. | 798. | 787. | 773. |
| 8000. | 1219. | 769. | 758. | 743. |
| 9000. | 1220. | 741. | 729. | 715. |
| 10000. | 1220. | 714. | 702. | 688. |
| 11000. | 1219. | 687. | 676. | 661. |
| 12000. | 1218. | 662. | 650. | 635. |
| 13000. | 1218. | 637. | 625. | 610. |
| 14000. | 1215. | 613. | 601. | 585. |
| 15000. | 1210. | 590. | 578. | 562. |
| 16000. | 1211. | 568. | 556. | 539. |
| 18000. | 1201. | 525. | 513. | 494. |
| 20000. | 1167. | 485. | 472. | 452. |
| 25000. | 1077. | 396. | 383. | 362. |
| 30000. | 983. | 320. | 307. | 288. |
| 35000. | 863. | 256. | 244. | 229. |
| 40000. | 781. | 204. | 192. | 181. |
| 45000. | 694. | 160. | 151. | 143. |
| 50000. | 615. | 125. | 119. | 112. |
| 55000. | 520. | 98. | 93. | 87. |
| 60000. | 486. | 76. | 72. | 68. |
| 65000. | 454. | 59. | 56. | 53. |
| 70000. | 412. | 46.5 | 44.0 | 41.5 |
| 75000. | 394. | 36.5 | 34.5 | 32.5 |
| 80000. | 365. | 28.5 | 27.5 | 25.5 |
| 85000. | 349. | 22.5 | 21.5 | 20.5 |
| 90000. | 323. | 18.1 | 17.1 | 16.2 |
| 95000. | 304. | 14.3 | 13.5 | 12.8 |
| 100000. | 232. | 11.4 | 10.8 | 10.0 |

TABLE XII (CONT)
 MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
 AT SELECTED LEVELS BY SEASONS
 STATION SIFF
 PERIOD OF RECORD 1961-1973

| GEO-METRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | SPRING | | |
|---------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 1217. | 862. | 848. | 825. |
| 5000. | 1478. | 860. | 846. | 823. |
| 6000. | 1481. | 828. | 816. | 794. |
| 7000. | 1478. | 798. | 787. | 765. |
| 8000. | 1477. | 769. | 758. | 738. |
| 9000. | 1476. | 742. | 731. | 710. |
| 10000. | 1477. | 715. | 704. | 684. |
| 11000. | 1469. | 689. | 678. | 658. |
| 12000. | 1468. | 663. | 652. | 631. |
| 13000. | 1464. | 639. | 628. | 606. |
| 14000. | 1462. | 615. | 604. | 581. |
| 15000. | 1458. | 592. | 581. | 558. |
| 16000. | 1456. | 570. | 558. | 534. |
| 18000. | 1444. | 528. | 516. | 491. |
| 20000. | 1401. | 488. | 475. | 450. |
| 25000. | 1295. | 399. | 386. | 359. |
| 30000. | 1196. | 323. | 310. | 286. |
| 35000. | 958. | 258. | 247. | 228. |
| 40000. | 793. | 205. | 195. | 181. |
| 45000. | 726. | 161. | 153. | 144. |
| 50000. | 648. | 127. | 120. | 113. |
| 55000. | 539. | 100. | 94. | 89. |
| 60000. | 486. | 78. | 74. | 69. |
| 65000. | 439. | 61. | 58. | 54. |
| 70000. | 408. | 48.0 | 45.5 | 42.5 |
| 75000. | 381. | 38.0 | 35.5 | 33.5 |
| 80000. | 353. | 30.0 | 28.0 | 26.5 |
| 85000. | 334. | 23.5 | 22.5 | 21.0 |
| 90000. | 311. | 18.7 | 17.8 | 16.5 |
| 95000. | 276. | 15.0 | 14.2 | 13.1 |
| 100000. | 211. | 12.0 | 11.3 | 10.4 |

TABLE XII (CONT)
 MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
 AT SELECTED LEVELS BY SEASONS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOGRAPHIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | SEASON | | MEAN | MINIMUM |
|---------------------------------|-----------------------|---------|---------|------|---------|
| | | MAXIMUM | MINIMUM | | |
| 4940. | 997. | 860. | 851. | 838. | |
| 5000. | 1085. | 858. | 849. | 836. | |
| 6000. | 1036. | 828. | 820. | 808. | |
| 7000. | 1086. | 799. | 791. | 780. | |
| 8000. | 1088. | 771. | 764. | 752. | |
| 9000. | 1087. | 743. | 737. | 725. | |
| 10000. | 1087. | 717. | 711. | 699. | |
| 11000. | 1087. | 692. | 686. | 673. | |
| 12000. | 1089. | 667. | 661. | 647. | |
| 13000. | 1088. | 643. | 637. | 623. | |
| 14000. | 1087. | 620. | 614. | 599. | |
| 15000. | 1083. | 597. | 591. | 576. | |
| 16000. | 1081. | 575. | 569. | 554. | |
| 17000. | 1072. | 533. | 527. | 512. | |
| 20000. | 1058. | 494. | 487. | 473. | |
| 25000. | 943. | 406. | 399. | 385. | |
| 30000. | 941. | 331. | 324. | 306. | |
| 35000. | 818. | 267. | 261. | 250. | |
| 40000. | 711. | 214. | 207. | 197. | |
| 45000. | 635. | 169. | 163. | 155. | |
| 50000. | 590. | 133. | 127. | 122. | |
| 55000. | 526. | 103. | 99. | 95. | |
| 60000. | 493. | 80. | 77. | 74. | |
| 65000. | 454. | 63. | 60. | 58. | |
| 70000. | 431. | 49.5 | 47.5 | 45.5 | |
| 75000. | 413. | 39.0 | 37.5 | 36.0 | |
| 80000. | 400. | 31.0 | 29.5 | 28.5 | |
| 85000. | 382. | 24.5 | 23.5 | 22.5 | |
| 90000. | 354. | 19.7 | 18.7 | 17.8 | |
| 95000. | 322. | 15.8 | 15.0 | 14.1 | |
| 100000. | 282. | 12.7 | 12.0 | 11.3 | |

TABLE XII (CONT)
 MEAN AND EXTREME UPPER AIR PRESSURES (MILLIBARS)
 AT SELECTED LEVELS BY SEASONS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | FALL | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 1036. | 865. | 851. | 835. |
| 5000. | 1190. | 863. | 849. | 833. |
| 6000. | 1188. | 831. | 819. | 802. |
| 7000. | 1188. | 800. | 790. | 773. |
| 8000. | 1190. | 771. | 761. | 744. |
| 9000. | 1191. | 744. | 734. | 716. |
| 10000. | 1190. | 718. | 707. | 689. |
| 11000. | 1190. | 692. | 682. | 662. |
| 12000. | 1187. | 667. | 656. | 637. |
| 13000. | 1186. | 643. | 632. | 612. |
| 14000. | 1185. | 619. | 608. | 588. |
| 15000. | 1182. | 596. | 586. | 565. |
| 16000. | 1180. | 574. | 563. | 542. |
| 18000. | 1177. | 532. | 521. | 499. |
| 20000. | 1161. | 492. | 482. | 459. |
| 25000. | 1080. | 403. | 393. | 371. |
| 30000. | 1010. | 327. | 318. | 298. |
| 35000. | 886. | 264. | 254. | 236. |
| 40000. | 774. | 210. | 201. | 187. |
| 45000. | 698. | 166. | 158. | 148. |
| 50000. | 660. | 129. | 124. | 116. |
| 55000. | 581. | 100. | 96. | 91. |
| 60000. | 548. | 78. | 75. | 71. |
| 65000. | 523. | 61. | 58. | 55. |
| 70000. | 501. | 48.0 | 46.0 | 43.0 |
| 75000. | 476. | 38.7 | 36.0 | 34.0 |
| 80000. | 456. | 30.0 | 29.5 | 26.5 |
| 85000. | 431. | 24.0 | 22.5 | 21.0 |
| 90000. | 397. | 19.0 | 17.9 | 16.6 |
| 95000. | 344. | 15.1 | 14.3 | 13.2 |
| 100000. | 292. | 12.1 | 11.4 | 10.5 |

ATMOSPHERIC STRUCTURE REPORT

STALLION SITE

SECTION I

UPPER AIR DENSITY DATA

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TABLE XIII
 MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | JANUARY | | |
|--------------------------------|-----------------------|---------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 546. | 1179. | 1065. | 1005. |
| 5000. | 411. | 1133. | 1060. | 992. |
| 6000. | 418. | 1115. | 1026. | 968. |
| 7000. | 414. | 1069. | 992. | 944. |
| 8000. | 417. | 1032. | 960. | 918. |
| 9000. | 415. | 997. | 928. | 893. |
| 10000. | 417. | 957. | 899. | 868. |
| 11000. | 417. | 920. | 871. | 842. |
| 12000. | 419. | 891. | 843. | 815. |
| 13000. | 416. | 861. | 816. | 791. |
| 14000. | 418. | 832. | 791. | 767. |
| 15000. | 416. | 806. | 766. | 744. |
| 16000. | 415. | 778. | 741. | 722. |
| 18000. | 410. | 720. | 695. | 676. |
| 20000. | 393. | 670. | 652. | 631. |
| 25000. | 359. | 568. | 554. | 540. |
| 30000. | 325. | 477. | 467. | 439. |
| 35000. | 260. | 399. | 387. | 354. |
| 40000. | 235. | 332. | 311. | 285. |
| 45000. | 209. | 272. | 246. | 228. |
| 50000. | 180. | 211. | 196. | 182. |
| 55000. | 154. | 167. | 155. | 143. |
| 60000. | 140. | 128. | 120. | 113. |
| 65000. | 130. | 98. | 93. | 88. |
| 70000. | 122. | 75. | 72. | 69. |
| 75000. | 115. | 58. | 56. | 54. |
| 80000. | 102. | 45. | 44. | 42. |
| 85000. | 98. | 36. | 34. | 33. |
| 90000. | 86. | 28. | 27. | 26. |
| 95000. | 82. | 22. | 21. | 20. |
| 100000. | 63. | 18. | 17. | 16. |

TABLE XIII (CONT)
 MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | FEBRUARY | | |
|--------------------------------|-----------------------|----------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 362. | 1140. | 1055. | 988. |
| 5000. | 469. | 1133. | 1052. | 967. |
| 6000. | 473. | 1095. | 1021. | 965. |
| 7000. | 469. | 1056. | 990. | 941. |
| 8000. | 470. | 1022. | 961. | 918. |
| 9000. | 466. | 980. | 931. | 895. |
| 10000. | 470. | 947. | 902. | 866. |
| 11000. | 463. | 915. | 874. | 837. |
| 12000. | 468. | 885. | 846. | 818. |
| 13000. | 462. | 857. | 819. | 791. |
| 14000. | 466. | 828. | 793. | 769. |
| 15000. | 464. | 802. | 768. | 744. |
| 16000. | 466. | 776. | 744. | 720. |
| 18000. | 463. | 727. | 698. | 674. |
| 20000. | 451. | 675. | 654. | 632. |
| 25000. | 404. | 566. | 554. | 531. |
| 30000. | 358. | 477. | 466. | 444. |
| 35000. | 280. | 400. | 385. | 357. |
| 40000. | 250. | 332. | 307. | 282. |
| 45000. | 221. | 264. | 243. | 226. |
| 50000. | 192. | 211. | 195. | 179. |
| 55000. | 158. | 168. | 154. | 142. |
| 60000. | 143. | 130. | 120. | 113. |
| 65000. | 124. | 97. | 93. | 89. |
| 70000. | 103. | 75. | 72. | 70. |
| 75000. | 96. | 59. | 56. | 54. |
| 80000. | 88. | 46. | 44. | 41. |
| 85000. | 87. | 36. | 34. | 32. |
| 90000. | 82. | 28. | 27. | 25. |
| 95000. | 78. | 23. | 21. | 20. |
| 100000. | 62. | 18. | 17. | 15. |

TABLE XIII (CONT)
 MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MARCH | | |
|--------------------------------|-----------------------|---------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 388. | 1124. | 1040. | 977. |
| 5000. | 481. | 1120. | 1040. | 977. |
| 6000. | 483. | 1074. | 1011. | 958. |
| 7000. | 482. | 1042. | 982. | 934. |
| 8000. | 482. | 1012. | 954. | 910. |
| 9000. | 480. | 983. | 926. | 887. |
| 10000. | 480. | 949. | 898. | 863. |
| 11000. | 475. | 914. | 871. | 840. |
| 12000. | 474. | 886. | 844. | 816. |
| 13000. | 473. | 859. | 818. | 792. |
| 14000. | 472. | 830. | 793. | 769. |
| 15000. | 472. | 800. | 768. | 745. |
| 16000. | 472. | 775. | 744. | 722. |
| 18000. | 470. | 725. | 697. | 678. |
| 20000. | 461. | 678. | 653. | 636. |
| 25000. | 411. | 568. | 553. | 533. |
| 30000. | 349. | 477. | 465. | 434. |
| 35000. | 257. | 398. | 384. | 349. |
| 40000. | 208. | 330. | 308. | 281. |
| 45000. | 188. | 267. | 243. | 224. |
| 50000. | 158. | 210. | 194. | 184. |
| 55000. | 134. | 165. | 153. | 143. |
| 60000. | 116. | 126. | 119. | 114. |
| 65000. | 100. | 98. | 93. | 89. |
| 70000. | 96. | 75. | 72. | 68. |
| 75000. | 87. | 58. | 56. | 54. |
| 80000. | 80. | 45. | 44. | 42. |
| 85000. | 77. | 36. | 35. | 33. |
| 90000. | 66. | 28. | 27. | 26. |
| 95000. | 61. | 22. | 21. | 20. |
| 100000. | 48. | 17. | 17. | 16. |

TABLE XIII (CONT)
 MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECD 1961-1973
 APRIL

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|-------|---------|
| 4940. | 412. | 1084. | 1023. | 983. |
| 5000. | 529. | 1081. | 1020. | 971. |
| 6000. | 533. | 1051. | 995. | 955. |
| 7000. | 528. | 1022. | 967. | 929. |
| 8000. | 530. | 994. | 941. | 905. |
| 9000. | 528. | 961. | 914. | 882. |
| 10000. | 532. | 931. | 888. | 860. |
| 11000. | 528. | 905. | 863. | 837. |
| 12000. | 531. | 876. | 837. | 814. |
| 13000. | 527. | 849. | 812. | 793. |
| 14000. | 531. | 822. | 788. | 769. |
| 15000. | 531. | 793. | 763. | 744. |
| 16000. | 530. | 767. | 740. | 721. |
| 18000. | 524. | 720. | 694. | 676. |
| 20000. | 500. | 673. | 651. | 635. |
| 25000. | 454. | 568. | 553. | 539. |
| 30000. | 414. | 477. | 466. | 441. |
| 35000. | 285. | 400. | 388. | 358. |
| 40000. | 230. | 332. | 315. | 288. |
| 45000. | 202. | 269. | 248. | 232. |
| 50000. | 183. | 207. | 197. | 184. |
| 55000. | 154. | 165. | 155. | 145. |
| 60000. | 138. | 129. | 122. | 116. |
| 65000. | 129. | 98. | 94. | 89. |
| 70000. | 121. | 76. | 73. | 70. |
| 75000. | 115. | 59. | 57. | 55. |
| 80000. | 106. | 46. | 44. | 43. |
| 85000. | 101. | 36. | 35. | 34. |
| 90000. | 97. | 28. | 27. | 26. |
| 95000. | 88. | 22. | 22. | 20. |
| 100000. | 67. | 18. | 17. | 16. |

TABLE XIII (CONT)
 MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAY | | |
|--------------------------------|-----------------------|---------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 408. | 1073. | 1004. | 960. |
| 5000. | 457. | 1068. | 1003. | 959. |
| 6000. | 460. | 1028. | 978. | 937. |
| 7000. | 457. | 998. | 951. | 916. |
| 8000. | 460. | 970. | 926. | 895. |
| 9000. | 457. | 943. | 900. | 874. |
| 10000. | 460. | 917. | 875. | 852. |
| 11000. | 453. | 892. | 851. | 828. |
| 12000. | 455. | 865. | 827. | 809. |
| 13000. | 449. | 837. | 803. | 787. |
| 14000. | 451. | 813. | 780. | 762. |
| 15000. | 448. | 788. | 757. | 738. |
| 16000. | 447. | 765. | 734. | 718. |
| 18000. | 441. | 703. | 691. | 676. |
| 20000. | 435. | 670. | 649. | 632. |
| 25000. | 419. | 566. | 552. | 539. |
| 30000. | 381. | 475. | 467. | 455. |
| 35000. | 260. | 400. | 392. | 374. |
| 40000. | 218. | 331. | 321. | 299. |
| 45000. | 205. | 273. | 255. | 239. |
| 50000. | 181. | 213. | 201. | 189. |
| 55000. | 146. | 167. | 159. | 149. |
| 60000. | 136. | 131. | 124. | 117. |
| 65000. | 122. | 101. | 95. | 90. |
| 70000. | 112. | 77. | 74. | 72. |
| 75000. | 105. | 59. | 58. | 56. |
| 80000. | 102. | 46. | 45. | 44. |
| 85000. | 99. | 36. | 35. | 34. |
| 90000. | 95. | 28. | 28. | 27. |
| 95000. | 86. | 23. | 22. | 21. |
| 100000. | 68. | 18. | 17. | 17. |

TABLE XIII (CONT)
 MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | JUNE | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 319. | 1039. | 988. | 943. |
| 5000. | 349. | 1035. | 987. | 942. |
| 6000. | 351. | 1001. | 963. | 922. |
| 7000. | 349. | 968. | 937. | 903. |
| 8000. | 351. | 938. | 912. | 883. |
| 9000. | 349. | 911. | 888. | 861. |
| 10000. | 351. | 885. | 864. | 840. |
| 11000. | 347. | 863. | 840. | 819. |
| 12000. | 351. | 840. | 817. | 795. |
| 13000. | 348. | 809. | 794. | 777. |
| 14000. | 348. | 786. | 771. | 757. |
| 15000. | 346. | 765. | 749. | 735. |
| 16000. | 347. | 744. | 728. | 714. |
| 18000. | 344. | 701. | 685. | 672. |
| 20000. | 338. | 659. | 644. | 630. |
| 25000. | 317. | 560. | 549. | 533. |
| 30000. | 295. | 477. | 466. | 455. |
| 35000. | 220. | 398. | 392. | 381. |
| 40000. | 164. | 334. | 325. | 310. |
| 45000. | 149. | 277. | 263. | 246. |
| 50000. | 143. | 224. | 210. | 199. |
| 55000. | 129. | 176. | 165. | 155. |
| 60000. | 121. | 133. | 126. | 121. |
| 65000. | 102. | 101. | 97. | 94. |
| 70000. | 97. | 79. | 75. | 73. |
| 75000. | 92. | 63. | 59. | 57. |
| 80000. | 91. | 48. | 46. | 45. |
| 85000. | 86. | 38. | 36. | 35. |
| 90000. | 81. | 30. | 28. | 28. |
| 95000. | 70. | 24. | 22. | 22. |
| 100000. | 60. | 19. | 18. | 17. |

TABLE XIII (CONT)
 MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | JULY | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 320. | 1019. | 985. | 948. |
| 5000. | 350. | 1017. | 985. | 947. |
| 6000. | 350. | 990. | 961. | 927. |
| 7000. | 350. | 964. | 935. | 904. |
| 8000. | 351. | 934. | 910. | 882. |
| 9000. | 351. | 908. | 885. | 861. |
| 10000. | 350. | 883. | 861. | 841. |
| 11000. | 353. | 854. | 837. | 819. |
| 12000. | 354. | 830. | 814. | 793. |
| 13000. | 353. | 811. | 791. | 778. |
| 14000. | 354. | 782. | 769. | 757. |
| 15000. | 353. | 761. | 747. | 737. |
| 16000. | 352. | 739. | 725. | 718. |
| 18000. | 350. | 693. | 683. | 672. |
| 20000. | 345. | 653. | 641. | 632. |
| 25000. | 317. | 555. | 545. | 538. |
| 30000. | 297. | 469. | 463. | 454. |
| 35000. | 251. | 399. | 392. | 385. |
| 40000. | 178. | 333. | 329. | 324. |
| 45000. | 155. | 275. | 272. | 267. |
| 50000. | 147. | 225. | 219. | 211. |
| 55000. | 134. | 176. | 170. | 165. |
| 60000. | 125. | 133. | 129. | 125. |
| 65000. | 114. | 101. | 99. | 97. |
| 70000. | 110. | 78. | 76. | 74. |
| 75000. | 107. | 61. | 59. | 58. |
| 80000. | 106. | 48. | 47. | 45. |
| 85000. | 102. | 38. | 37. | 36. |
| 90000. | 97. | 30. | 29. | 28. |
| 95000. | 92. | 23. | 23. | 22. |
| 100000. | 85. | 19. | 18. | 18. |

TABLE XIII (CONT)
 MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
 AT SELECTED LEVELS BY MONTHS
 S. LLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | AUGUST | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 355. | 1025. | 990. | 953. |
| 5000. | 384. | 1026. | 989. | 953. |
| 6000. | 384. | 992. | 964. | 932. |
| 7000. | 385. | 962. | 938. | 909. |
| 8000. | 385. | 936. | 913. | 887. |
| 9000. | 385. | 912. | 888. | 865. |
| 10000. | 384. | 889. | 863. | 844. |
| 11000. | 384. | 862. | 840. | 824. |
| 12000. | 384. | 836. | 816. | 801. |
| 13000. | 385. | 810. | 793. | 780. |
| 14000. | 385. | 785. | 771. | 758. |
| 15000. | 384. | 760. | 748. | 732. |
| 16000. | 382. | 737. | 726. | 709. |
| 18000. | 378. | 694. | 683. | 667. |
| 20000. | 375. | 650. | 641. | 626. |
| 25000. | 358. | 554. | 545. | 534. |
| 30000. | 344. | 471. | 463. | 453. |
| 35000. | 284. | 399. | 391. | 386. |
| 40000. | 215. | 334. | 328. | 321. |
| 45000. | 191. | 275. | 270. | 261. |
| 50000. | 177. | 225. | 218. | 207. |
| 55000. | 162. | 178. | 169. | 162. |
| 60000. | 155. | 133. | 129. | 124. |
| 65000. | 147. | 102. | 98. | 95. |
| 70000. | 137. | 78. | 76. | 75. |
| 75000. | 130. | 61. | 59. | 58. |
| 80000. | 124. | 48. | 47. | 46. |
| 85000. | 120. | 38. | 37. | 36. |
| 90000. | 106. | 30. | 29. | 28. |
| 95000. | 96. | 24. | 23. | 22. |
| 100000. | 82. | 19. | 18. | 17. |

TABLE XIII (CONT)
 MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973
 SEPTEMBER

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|-------|---------|
| 4940. | 319. | 1054. | 1000. | 959. |
| 5000. | 361. | 1049. | 999. | 959. |
| 6000. | 364. | 1015. | 974. | 939. |
| 7000. | 361. | 988. | 946. | 917. |
| 8000. | 365. | 961. | 921. | 896. |
| 9000. | 362. | 933. | 895. | 874. |
| 10000. | 365. | 907. | 870. | 851. |
| 11000. | 360. | 881. | 846. | 829. |
| 12000. | 364. | 855. | 822. | 808. |
| 13000. | 360. | 822. | 798. | 786. |
| 14000. | 364. | 796. | 774. | 761. |
| 15000. | 363. | 772. | 751. | 738. |
| 16000. | 363. | 747. | 728. | 714. |
| 18000. | 361. | 702. | 683. | 669. |
| 20000. | 359. | 660. | 641. | 627. |
| 25000. | 345. | 562. | 547. | 534. |
| 30000. | 323. | 473. | 464. | 448. |
| 35000. | 251. | 397. | 390. | 374. |
| 40000. | 202. | 331. | 324. | 303. |
| 45000. | 188. | 274. | 265. | 246. |
| 50000. | 181. | 224. | 214. | 201. |
| 55000. | 159. | 173. | 166. | 154. |
| 60000. | 147. | 131. | 127. | 121. |
| 65000. | 138. | 100. | 97. | 93. |
| 70000. | 128. | 78. | 75. | 73. |
| 75000. | 124. | 61. | 59. | 57. |
| 80000. | 121. | 47. | 46. | 44. |
| 85000. | 115. | 37. | 36. | 35. |
| 90000. | 105. | 29. | 28. | 27. |
| 95000. | 91. | 23. | 22. | 22. |
| 100000. | 80. | 18. | 18. | 17. |

TABLE XIII (CONT)
 MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | OCTOBER | | |
|--------------------------------|-----------------------|---------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 362. | 1085. | 1020. | 969. |
| 5000. | 412. | 1080. | 1019. | 967. |
| 6000. | 417. | 1043. | 990. | 944. |
| 7000. | 411. | 1012. | 960. | 921. |
| 8000. | 417. | 983. | 933. | 898. |
| 9000. | 413. | 955. | 906. | 876. |
| 10000. | 418. | 926. | 879. | 855. |
| 11000. | 413. | 898. | 853. | 832. |
| 12000. | 412. | 871. | 828. | 810. |
| 13000. | 413. | 845. | 803. | 782. |
| 14000. | 417. | 819. | 778. | 757. |
| 15000. | 416. | 795. | 755. | 734. |
| 16000. | 414. | 759. | 731. | 713. |
| 18000. | 413. | 707. | 687. | 672. |
| 20000. | 410. | 660. | 645. | 629. |
| 25000. | 387. | 561. | 550. | 535. |
| 30000. | 362. | 475. | 467. | 444. |
| 35000. | 290. | 400. | 392. | 375. |
| 40000. | 242. | 334. | 322. | 302. |
| 45000. | 208. | 273. | 261. | 250. |
| 50000. | 204. | 219. | 208. | 196. |
| 55000. | 182. | 172. | 163. | 155. |
| 60000. | 176. | 130. | 125. | 120. |
| 65000. | 167. | 99. | 96. | 93. |
| 70000. | 161. | 77. | 74. | 72. |
| 75000. | 153. | 59. | 58. | 56. |
| 80000. | 146. | 46. | 45. | 44. |
| 85000. | 136. | 36. | 35. | 34. |
| 90000. | 125. | 29. | 28. | 27. |
| 95000. | 110. | 23. | 22. | 21. |
| 100000. | 97. | 18. | 17. | 17. |

TABLE XIII. (CONT.)
 MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | NOVEMBER | | |
|--------------------------------|-----------------------|----------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 341. | 1114. | 1042. | 992. |
| 5000. | 401. | 1112. | 1041. | 996. |
| 6000. | 405. | 1074. | 1010. | 972. |
| 7000. | 400. | 1033. | 979. | 944. |
| 8000. | 405. | 996. | 949. | 914. |
| 9000. | 399. | 965. | 920. | 892. |
| 10000. | 406. | 934. | 891. | 860. |
| 11000. | 401. | 901. | 863. | 835. |
| 12000. | 403. | 873. | 836. | 812. |
| 13000. | 397. | 842. | 809. | 786. |
| 14000. | 402. | 810. | 784. | 762. |
| 15000. | 401. | 785. | 759. | 740. |
| 16000. | 401. | 760. | 736. | 717. |
| 18000. | 400. | 712. | 691. | 671. |
| 20000. | 390. | 675. | 648. | 632. |
| 25000. | 344. | 563. | 551. | 535. |
| 30000. | 310. | 479. | 465. | 438. |
| 35000. | 243. | 400. | 388. | 357. |
| 40000. | 184. | 335. | 319. | 297. |
| 45000. | 166. | 275. | 256. | 238. |
| 50000. | 152. | 221. | 203. | 190. |
| 55000. | 129. | 169. | 159. | 150. |
| 60000. | 118. | 128. | 123. | 115. |
| 65000. | 113. | 98. | 95. | 91. |
| 70000. | 109. | 75. | 73. | 71. |
| 75000. | 102. | 54. | 57. | 55. |
| 80000. | 98. | 45. | 44. | 42. |
| 85000. | 93. | 36. | 35. | 32. |
| 90000. | 85. | 24. | 27. | 26. |
| 95000. | 69. | 22. | 21. | 20. |
| 100000. | 52. | 17. | 17. | 16. |

TABLE XIII (CONT)
 MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | DECEMBER | | |
|--------------------------------|-----------------------|----------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 293. | 1125. | 1063. | 1011. |
| 5000. | 324. | 1121. | 1061. | 1009. |
| 6000. | 328. | 1075. | 1025. | 983. |
| 7000. | 325. | 1038. | 992. | 957. |
| 8000. | 328. | 997. | 959. | 925. |
| 9000. | 325. | 964. | 928. | 896. |
| 10000. | 328. | 931. | 898. | 871. |
| 11000. | 324. | 899. | 870. | 840. |
| 12000. | 328. | 870. | 841. | 814. |
| 13000. | 324. | 844. | 814. | 786. |
| 14000. | 328. | 812. | 788. | 769. |
| 15000. | 327. | 785. | 763. | 745. |
| 16000. | 327. | 758. | 739. | 724. |
| 18000. | 325. | 711. | 694. | 678. |
| 20000. | 321. | 667. | 650. | 634. |
| 25000. | 303. | 566. | 552. | 528. |
| 30000. | 263. | 476. | 465. | 442. |
| 35000. | 206. | 406. | 386. | 357. |
| 40000. | 178. | 330. | 312. | 286. |
| 45000. | 154. | 263. | 248. | 232. |
| 50000. | 144. | 208. | 197. | 183. |
| 55000. | 124. | 163. | 155. | 145. |
| 60000. | 123. | 126. | 121. | 115. |
| 65000. | 119. | 97. | 94. | 87. |
| 70000. | 111. | 76. | 72. | 69. |
| 75000. | 110. | 58. | 56. | 54. |
| 80000. | 107. | 45. | 44. | 43. |
| 85000. | 105. | 35. | 34. | 33. |
| 90000. | 100. | 28. | 27. | 26. |
| 95000. | 93. | 22. | 21. | 21. |
| 100000. | 77. | 17. | 17. | 16. |

TABLE XIV
 MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
 AT SELECTED LEVELS BY SEASONS
 STALLION SITE
 PERIOD OF RECORD 1961-1973
 WINTER

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|-------|---------|
| 4940. | 1001. | 1179. | 1061. | 988. |
| 5000. | 1204. | 1133. | 1057. | 967. |
| 6000. | 1219. | 1115. | 1024. | 965. |
| 7000. | 1208. | 1059. | 992. | 941. |
| 8000. | 1215. | 1032. | 960. | 918. |
| 9000. | 1206. | 997. | 929. | 893. |
| 10000. | 1215. | 957. | 900. | 866. |
| 11000. | 1204. | 920. | 872. | 837. |
| 12000. | 1215. | 891. | 844. | 814. |
| 13000. | 1202. | 861. | 817. | 786. |
| 14000. | 1212. | 832. | 791. | 767. |
| 15000. | 1207. | 806. | 766. | 744. |
| 16000. | 1208. | 778. | 742. | 720. |
| 18000. | 1198. | 727. | 696. | 674. |
| 20000. | 1165. | 675. | 652. | 631. |
| 25000. | 1066. | 568. | 554. | 528. |
| 30000. | 946. | 477. | 466. | 439. |
| 35000. | 746. | 406. | 386. | 354. |
| 40000. | 663. | 332. | 309. | 282. |
| 45000. | 584. | 272. | 245. | 226. |
| 50000. | 516. | 211. | 196. | 179. |
| 55000. | 436. | 168. | 155. | 142. |
| 60000. | 406. | 130. | 120. | 113. |
| 65000. | 373. | 98. | 93. | 87. |
| 70000. | 336. | 76. | 72. | 69. |
| 75000. | 321. | 59. | 56. | 54. |
| 80000. | 297. | 46. | 44. | 41. |
| 85000. | 290. | 36. | 34. | 32. |
| 90000. | 268. | 28. | 27. | 25. |
| 95000. | 253. | 23. | 21. | 20. |
| 100000. | 202. | 18. | 17. | 15. |

TABLE XIV (CONT)
 MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
 AT SELECTED LEVELS BY SEASONS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | SPRING | | |
|--------------------------------|-----------------------|---------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 1208. | 1124. | 1022. | 960. |
| 5000. | 1467. | 1120. | 1021. | 959. |
| 6000. | 1476. | 1074. | 995. | 937. |
| 7000. | 1467. | 1042. | 967. | 916. |
| 8000. | 1472. | 1012. | 940. | 895. |
| 9000. | 1465. | 983. | 914. | 874. |
| 10000. | 1472. | 949. | 888. | 852. |
| 11000. | 1456. | 914. | 862. | 828. |
| 12000. | 1460. | 886. | 836. | 809. |
| 13000. | 1449. | 854. | 811. | 787. |
| 14000. | 1454. | 830. | 787. | 762. |
| 15000. | 1451. | 800. | 763. | 738. |
| 16000. | 1449. | 775. | 739. | 718. |
| 18000. | 1435. | 725. | 694. | 676. |
| 20000. | 1396. | 678. | 651. | 632. |
| 25000. | 1284. | 568. | 553. | 533. |
| 30000. | 1144. | 477. | 466. | 434. |
| 35000. | 802. | 400. | 388. | 349. |
| 40000. | 656. | 332. | 315. | 281. |
| 45000. | 595. | 273. | 249. | 224. |
| 50000. | 522. | 213. | 198. | 184. |
| 55000. | 434. | 167. | 156. | 143. |
| 60000. | 390. | 131. | 122. | 114. |
| 65000. | 351. | 101. | 94. | 89. |
| 70000. | 329. | 77. | 73. | 68. |
| 75000. | 307. | 59. | 57. | 54. |
| 80000. | 288. | 46. | 45. | 42. |
| 85000. | 277. | 36. | 35. | 33. |
| 90000. | 258. | 28. | 27. | 26. |
| 95000. | 235. | 23. | 22. | 20. |
| 100000. | 183. | 18. | 17. | 16. |

TABLE XIV (CONT)
 MEAN AND EXTREME UPPER AIR DENSITIES (GRAMS/CUBIC METER)
 AT SELECTED LEVELS BY SEASONS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | SUMMER | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 994. | 1039. | 988. | 943. |
| 5000. | 1083. | 1035. | 987. | 942. |
| 6000. | 1085. | 1001. | 963. | 922. |
| 7000. | 1084. | 968. | 937. | 903. |
| 8000. | 1087. | 938. | 912. | 882. |
| 9000. | 1085. | 912. | 887. | 861. |
| 10000. | 1085. | 889. | 863. | 840. |
| 11000. | 1084. | 863. | 839. | 819. |
| 12000. | 1089. | 840. | 816. | 795. |
| 13000. | 1086. | 811. | 793. | 777. |
| 14000. | 1087. | 786. | 770. | 757. |
| 15000. | 1083. | 765. | 748. | 732. |
| 16000. | 1081. | 744. | 726. | 709. |
| 18000. | 1072. | 701. | 683. | 667. |
| 20000. | 1058. | 659. | 642. | 626. |
| 25000. | 992. | 560. | 546. | 533. |
| 30000. | 936. | 477. | 464. | 453. |
| 35000. | 755. | 399. | 392. | 381. |
| 40000. | 557. | 334. | 327. | 310. |
| 45000. | 495. | 277. | 269. | 246. |
| 50000. | 467. | 225. | 216. | 199. |
| 55000. | 425. | 178. | 168. | 155. |
| 60000. | 401. | 133. | 128. | 121. |
| 65000. | 363. | 102. | 98. | 94. |
| 70000. | 344. | 79. | 76. | 73. |
| 75000. | 329. | 63. | 59. | 57. |
| 80000. | 321. | 48. | 46. | 45. |
| 85000. | 308. | 38. | 36. | 35. |
| 90000. | 284. | 30. | 29. | 28. |
| 95000. | 258. | 24. | 23. | 22. |
| 100000. | 227. | 19. | 18. | 17. |

TABLE XIV (CONT)
 MEAN AND EXTREME UPPER AIR DENSITIES (GFAMS/CUBIC METER)
 AT SELECTED LEVELS BY SEASONS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | FALL | | |
|--------------------------------|-----------------------|---------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 1022. | 1114. | 1021. | 959. |
| 5000. | 1174. | 1112. | 1020. | 959. |
| 6000. | 1186. | 1078. | 992. | 939. |
| 7000. | 1172. | 1033. | 962. | 917. |
| 8000. | 1187. | 996. | 934. | 896. |
| 9000. | 1174. | 965. | 907. | 874. |
| 10000. | 1189. | 934. | 881. | 851. |
| 11000. | 1174. | 901. | 854. | 829. |
| 12000. | 1185. | 873. | 829. | 808. |
| 13000. | 1170. | 845. | 803. | 782. |
| 14000. | 1183. | 819. | 779. | 757. |
| 15000. | 1180. | 795. | 755. | 734. |
| 16000. | 1178. | 760. | 732. | 713. |
| 18000. | 1174. | 712. | 687. | 669. |
| 20000. | 1159. | 675. | 645. | 627. |
| 25000. | 1076. | 563. | 549. | 534. |
| 30000. | 995. | 479. | 465. | 438. |
| 35000. | 784. | 400. | 390. | 357. |
| 40000. | 628. | 335. | 322. | 297. |
| 45000. | 562. | 275. | 261. | 238. |
| 50000. | 537. | 224. | 209. | 190. |
| 55000. | 470. | 173. | 163. | 150. |
| 60000. | 441. | 131. | 125. | 115. |
| 65000. | 418. | 100. | 96. | 91. |
| 70000. | 398. | 78. | 74. | 71. |
| 75000. | 379. | 61. | 58. | 55. |
| 80000. | 365. | 47. | 45. | 42. |
| 85000. | 344. | 38. | 35. | 32. |
| 90000. | 315. | 29. | 28. | 26. |
| 95000. | 270. | 23. | 22. | 20. |
| 100000. | 229. | 18. | 17. | 16. |

ATMOSPHERIC STRUCTURE REPORT

STALLION SITE

SECTION I

UPPER AIR MOISTURE DATA

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TABLE XV
 MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/PILOGRAM) AT SELECTED LEVELS
 BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973
 JANUARY

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|-------|---------|
| 5000. | 417. | 7.554 | 2.729 | .290 |
| 5000. | 418. | 5.783 | 2.372 | .444 |
| 7000. | 416. | 7.044 | 2.213 | .401 |
| 6000. | 416. | 5.861 | 2.004 | .402 |
| 4000. | 414. | 5.322 | 1.819 | .293 |
| 10000. | 410. | 4.797 | 1.645 | .171 |
| 11000. | 411. | 4.663 | 1.472 | .064 |
| 12000. | 409. | 4.160 | 1.321 | .166 |
| 13000. | 405. | 4.003 | 1.184 | .059 |
| 14000. | 405. | 3.791 | 1.049 | .027 |
| 15000. | 397. | 4.047 | .923 | .077 |
| 16000. | 395. | 4.006 | .823 | .034 |
| 18000. | 386. | 3.214 | .640 | .010 |
| 20000. | 373. | 2.557 | .482 | .022 |
| 22000. | 362. | 1.851 | .354 | .044 |
| 24000. | 351. | .992 | .247 | .007 |
| 26000. | 318. | .809 | .166 | .002 |
| 28000. | 246. | .553 | .114 | .001 |
| 30000. | 155. | .290 | .067 | .001 |
| 32000. | 75. | .179 | .044 | .001 |
| 34000. | 30. | .083 | .017 | .001 |
| 36000. | 6. | .024 | .009 | .001 |
| 38000. | 0. | .000 | .000 | .000 |
| 40000. | 0. | .000 | .000 | .000 |
| 42000. | 0. | .000 | .000 | .000 |
| 44000. | 0. | .000 | .000 | .000 |
| 46000. | 0. | .000 | .000 | .000 |
| 48000. | 0. | .000 | .000 | .000 |
| 50000. | 0. | .000 | .000 | .000 |

TABLE XV (CONT)
 MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY MONTH
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEODESIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | FEBRUARY | | |
|-------------------------------|-----------------------|----------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 5000. | 475. | 8.940 | 2.772 | .712 |
| 6000. | 475. | 7.990 | 2.414 | .642 |
| 7000. | 475. | 6.503 | 2.268 | .516 |
| 8000. | 470. | 5.751 | 2.092 | .170 |
| 9000. | 470. | 5.290 | 1.912 | .143 |
| 10000. | 466. | 4.837 | 1.729 | .262 |
| 11000. | 463. | 4.452 | 1.523 | .062 |
| 12000. | 460. | 4.314 | 1.320 | .172 |
| 13000. | 457. | 4.303 | 1.147 | .057 |
| 14000. | 454. | 4.241 | .979 | .033 |
| 15000. | 450. | 5.066 | .857 | .020 |
| 16000. | 451. | 4.852 | .764 | .056 |
| 17000. | 450. | 3.990 | .576 | .011 |
| 20000. | 435. | 3.283 | .447 | .005 |
| 22000. | 418. | 2.452 | .337 | .005 |
| 24000. | 378. | 1.664 | .254 | .005 |
| 26000. | 342. | 1.086 | .179 | .002 |
| 28000. | 265. | .691 | .125 | .002 |
| 30000. | 177. | .421 | .080 | .001 |
| 32000. | 85. | .264 | .053 | .001 |
| 34000. | 38. | .199 | .034 | .001 |
| 36000. | 15. | .153 | .025 | .001 |
| 38000. | 4. | .009 | .006 | .001 |
| 40000. | 1. | .001 | .001 | .001 |
| 42000. | 0. | .000 | .000 | .000 |
| 44000. | 0. | .000 | .000 | .000 |
| 46000. | 0. | .000 | .000 | .000 |
| 48000. | 0. | .000 | .000 | .000 |
| 50000. | 0. | .000 | .000 | .000 |

TABLE XV (CONT)
 NEAR AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/PILOGRAM) AT SELECTED LEVELS
 BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|-------|---------|
| 5000. | 483. | 8.148 | 2.737 | .581 |
| 6000. | 482. | 6.539 | 2.361 | .254 |
| 7000. | 484. | 5.966 | 2.191 | .055 |
| 8000. | 480. | 5.325 | 2.044 | .287 |
| 9000. | 480. | 5.002 | 1.881 | .196 |
| 10000. | 474. | 4.951 | 1.698 | .124 |
| 11000. | 472. | 4.518 | 1.511 | .173 |
| 12000. | 464. | 4.233 | 1.324 | .036 |
| 13000. | 469. | 3.935 | 1.160 | .032 |
| 14000. | 465. | 3.453 | 1.000 | .032 |
| 15000. | 465. | 3.476 | .867 | .022 |
| 16000. | 463. | 3.167 | .756 | .026 |
| 18000. | 453. | 3.002 | .588 | .013 |
| 20000. | 445. | 2.418 | .454 | .010 |
| 22000. | 421. | 1.609 | .340 | .012 |
| 24000. | 396. | 1.115 | .248 | .011 |
| 26000. | 337. | .695 | .178 | .005 |
| 28000. | 262. | .485 | .123 | .003 |
| 30000. | 181. | .333 | .071 | .002 |
| 32000. | 93. | .220 | .040 | .001 |
| 34000. | 38. | .044 | .018 | .001 |
| 36000. | 9. | .045 | .013 | .002 |
| 38000. | 4. | .044 | .023 | .002 |
| 40000. | 3. | .042 | .034 | .019 |
| 42000. | 3. | .038 | .032 | .022 |
| 44000. | 3. | .045 | .030 | .019 |
| 46000. | 2. | .034 | .025 | .017 |
| 48000. | 2. | .034 | .026 | .017 |
| 50000. | 2. | .038 | .027 | .015 |

TABLE XV (CONT)
 MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/GRAM) AT SELECTED LEVELS
 BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | APRIL | | |
|--------------------------------|-----------------------|---------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 5000. | 533. | 8.579 | 3.152 | .200 |
| 6000. | 523. | 7.543 | 2.803 | .120 |
| 7000. | 524. | 7.154 | 2.567 | .102 |
| 8000. | 518. | 6.589 | 2.408 | .172 |
| 9000. | 518. | 5.890 | 2.188 | .980 |
| 10000. | 518. | 5.005 | 1.961 | .133 |
| 11000. | 517. | 4.887 | 1.763 | .050 |
| 12000. | 509. | 4.568 | 1.590 | .262 |
| 13000. | 503. | 4.222 | 1.400 | .147 |
| 14000. | 497. | 3.876 | 1.234 | .040 |
| 15000. | 488. | 3.533 | 1.067 | .068 |
| 16000. | 483. | 3.214 | .927 | .057 |
| 18000. | 468. | 2.505 | .655 | .021 |
| 20000. | 435. | 2.073 | .497 | .033 |
| 22000. | 412. | 1.709 | .357 | .026 |
| 24000. | 390. | 1.212 | .270 | .006 |
| 26000. | 357. | .673 | .190 | .004 |
| 28000. | 308. | .446 | .130 | .006 |
| 30000. | 222. | .275 | .076 | .002 |
| 32000. | 108. | .146 | .036 | .002 |
| 34000. | 47. | .063 | .016 | .001 |
| 36000. | 14. | .020 | .008 | .001 |
| 38000. | 5. | .004 | .002 | .001 |
| 40000. | 0. | .000 | .000 | .000 |
| 42000. | 0. | .000 | .000 | .000 |
| 44000. | 0. | .000 | .000 | .000 |
| 46000. | 0. | .000 | .000 | .000 |
| 48000. | 0. | .000 | .000 | .000 |
| 50000. | 0. | .000 | .000 | .000 |

TABLE IV (CONT)
 MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973
 MAY

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|-------|---------|
| 5000. | 453. | 9.983 | 4.459 | .262 |
| 6000. | 450. | 10.093 | 3.824 | .437 |
| 7000. | 446. | 8.757 | 3.549 | .144 |
| 8000. | 444. | 7.760 | 3.308 | .129 |
| 9000. | 444. | 7.455 | 3.031 | .297 |
| 10000. | 444. | 6.467 | 2.721 | .084 |
| 11000. | 446. | 6.956 | 2.455 | .084 |
| 12000. | 445. | 6.912 | 2.199 | .063 |
| 13000. | 444. | 6.481 | 1.974 | .150 |
| 14000. | 442. | 6.034 | 1.769 | .058 |
| 15000. | 437. | 5.569 | 1.595 | .045 |
| 16000. | 434. | 5.134 | 1.423 | .054 |
| 18000. | 428. | 4.279 | 1.033 | .122 |
| 20000. | 417. | 3.515 | .738 | .143 |
| 22000. | 406. | 2.334 | .503 | .027 |
| 24000. | 400. | 1.444 | .355 | .019 |
| 26000. | 385. | 1.049 | .253 | .006 |
| 28000. | 359. | .754 | .174 | .004 |
| 30000. | 300. | .483 | .112 | .002 |
| 32000. | 162. | .296 | .072 | .002 |
| 34000. | 93. | .137 | .028 | .001 |
| 36000. | 30. | .062 | .011 | .001 |
| 38000. | 5. | .026 | .007 | .001 |
| 40000. | 1. | .006 | .006 | .006 |
| 42000. | 0. | .000 | .000 | .000 |
| 44000. | 0. | .000 | .000 | .000 |
| 46000. | 0. | .000 | .000 | .000 |
| 48000. | 0. | .000 | .000 | .000 |
| 50000. | 0. | .000 | .000 | .000 |

TABLE XV (CONT)
GRAIN MIXING RATIOS (GRAMS/PILOGRAM) AT SELECTED LEVELS
BY MONTHS
STALLION SITE
PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTIMETER M32 FL11 | | JUNE | | TOTAL OBSERVATIONS | | MAXIMUM | | MEAN | | MINIMUM | |
|---------------------------------|------|--------|-------|-----------------------|--|---------|--|------|--|---------|--|
| 5000. | 345. | 13.018 | 6.185 | .904 | | | | | | | |
| 5000. | 344. | 12.714 | 5.358 | .478 | | | | | | | |
| 7000. | 343. | 12.618 | 4.956 | .226 | | | | | | | |
| 5000. | 346. | 12.105 | 4.566 | 1.246 | | | | | | | |
| 5000. | 345. | 11.633 | 4.204 | 1.118 | | | | | | | |
| 10000. | 346. | 9.676 | 3.800 | .705 | | | | | | | |
| 11000. | 345. | 8.864 | 3.468 | .272 | | | | | | | |
| 12000. | 346. | 8.293 | 3.134 | .100 | | | | | | | |
| 13000. | 345. | 7.584 | 2.845 | .264 | | | | | | | |
| 14000. | 344. | 6.579 | 2.554 | .279 | | | | | | | |
| 15000. | 340. | 6.702 | 2.289 | .067 | | | | | | | |
| 16000. | 342. | 6.315 | 2.018 | .053 | | | | | | | |
| 16000. | 334. | 5.790 | 1.544 | .044 | | | | | | | |
| 20000. | 323. | 4.868 | 1.085 | .059 | | | | | | | |
| 22000. | 308. | 4.553 | .727 | .048 | | | | | | | |
| 24000. | 295. | 2.414 | .510 | .026 | | | | | | | |
| 25000. | 283. | 1.386 | .358 | .048 | | | | | | | |
| 26000. | 279. | .856 | .255 | .010 | | | | | | | |
| 30000. | 257. | .598 | .168 | .006 | | | | | | | |
| 32000. | 181. | .510 | .121 | .004 | | | | | | | |
| 34000. | 131. | .368 | .068 | .003 | | | | | | | |
| 35000. | 68. | .186 | .036 | .003 | | | | | | | |
| 36000. | 38. | .083 | .025 | .001 | | | | | | | |
| 40000. | 22. | .049 | .022 | .002 | | | | | | | |
| 42000. | 16. | .041 | .019 | .001 | | | | | | | |
| 44000. | 13. | .036 | .018 | .001 | | | | | | | |
| 46000. | 12. | .033 | .016 | .008 | | | | | | | |
| 48000. | 12. | .028 | .013 | .007 | | | | | | | |
| 50000. | 13. | .030 | .013 | .005 | | | | | | | |

TABLE XV (CONT)

MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

JULY

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|--------|---------|
| 5000. | 350. | 16.716 | 10.061 | 2.527 |
| 6000. | 349. | 13.312 | 8.232 | .984 |
| 7000. | 349. | 13.526 | 7.724 | .273 |
| 8000. | 350. | 13.691 | 7.191 | .714 |
| 9000. | 350. | 11.717 | 6.661 | 1.665 |
| 10000. | 349. | 10.745 | 6.138 | 2.197 |
| 11000. | 353. | 10.020 | 5.583 | .694 |
| 12000. | 353. | 9.256 | 5.080 | 1.020 |
| 13000. | 354. | 8.477 | 4.618 | .924 |
| 14000. | 354. | 7.837 | 4.191 | .356 |
| 15000. | 353. | 7.204 | 3.778 | .750 |
| 16000. | 352. | 6.634 | 3.358 | .621 |
| 18000. | 344. | 5.518 | 2.605 | .126 |
| 20000. | 334. | 4.779 | 1.914 | .338 |
| 22000. | 319. | 3.890 | 1.328 | .075 |
| 24000. | 303. | 2.995 | .900 | .025 |
| 26000. | 281. | 2.210 | .655 | .022 |
| 28000. | 273. | 1.440 | .447 | .047 |
| 30000. | 264. | .880 | .306 | .014 |
| 32000. | 240. | .567 | .206 | .009 |
| 34000. | 199. | .387 | .132 | .004 |
| 36000. | 116. | .246 | .063 | .003 |
| 38000. | 69. | .102 | .042 | .002 |
| 40000. | 47. | .061 | .027 | .001 |
| 42000. | 29. | .038 | .023 | .001 |
| 44000. | 22. | .024 | .017 | .010 |
| 46000. | 22. | .017 | .010 | .005 |
| 48000. | 21. | .013 | .007 | .005 |
| 50000. | 21. | .008 | .005 | .003 |

TABLE XV (CONT)
 MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|-------|---------|
| 5000. | 383. | 14.866 | 9.698 | 4.335 |
| 6000. | 382. | 13.346 | 7.950 | .293 |
| 7000. | 383. | 12.129 | 7.406 | .197 |
| 8000. | 382. | 11.576 | 6.953 | .783 |
| 9000. | 385. | 11.749 | 6.500 | .785 |
| 10000. | 384. | 10.888 | 6.054 | 1.622 |
| 11000. | 384. | 10.192 | 5.557 | 1.268 |
| 12000. | 383. | 8.544 | 5.105 | .919 |
| 13000. | 383. | 8.176 | 4.646 | .842 |
| 14000. | 383. | 7.134 | 4.153 | .752 |
| 15000. | 381. | 6.983 | 3.660 | .454 |
| 16000. | 378. | 6.482 | 3.223 | .612 |
| 17000. | 372. | 5.191 | 2.367 | .122 |
| 20000. | 354. | 4.114 | 1.674 | .174 |
| 22000. | 340. | 3.465 | 1.142 | .034 |
| 24000. | 331. | 2.637 | .823 | .022 |
| 26000. | 325. | 1.696 | .564 | .023 |
| 28000. | 315. | 1.190 | .399 | .046 |
| 30000. | 313. | .823 | .279 | .014 |
| 32000. | 276. | .667 | .195 | .005 |
| 34000. | 224. | .394 | .122 | .005 |
| 36000. | 114. | .240 | .052 | .003 |
| 38000. | 65. | .122 | .027 | .002 |
| 40000. | 34. | .058 | .012 | .002 |
| 42000. | 9. | .030 | .012 | .001 |
| 44000. | 4. | .020 | .011 | .003 |
| 46000. | 2. | .015 | .012 | .010 |
| 48000. | 2. | .010 | .008 | .005 |
| 50000. | 2. | .009 | .006 | .003 |

MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 TABLE XV (CONT)
 BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | SEPTEMBER | | |
|--------------------------------|-----------------------|-----------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 5000. | 365. | 14.696 | 8.069 | 2.207 |
| 6000. | 363. | 12.827 | 6.751 | 1.908 |
| 7000. | 364. | 11.987 | 6.316 | .716 |
| 8000. | 363. | 11.922 | 5.910 | 1.761 |
| 9000. | 366. | 11.424 | 5.420 | 1.187 |
| 10000. | 364. | 9.782 | 4.971 | 1.122 |
| 11000. | 362. | 8.520 | 4.532 | .912 |
| 12000. | 360. | 7.940 | 4.096 | .823 |
| 13000. | 358. | 8.638 | 3.590 | .561 |
| 14000. | 357. | 7.154 | 3.147 | .089 |
| 15000. | 351. | 6.929 | 2.668 | .434 |
| 16000. | 337. | 6.751 | 2.324 | .292 |
| 18000. | 325. | 6.102 | 1.689 | .026 |
| 20000. | 312. | 4.540 | 1.163 | .120 |
| 22000. | 296. | 2.929 | .769 | .068 |
| 24000. | 292. | 2.236 | .526 | .054 |
| 26000. | 285. | 1.689 | .392 | .016 |
| 28000. | 274. | 1.370 | .304 | .006 |
| 30000. | 256. | .774 | .209 | .004 |
| 32000. | 188. | .523 | .163 | .004 |
| 34000. | 119. | .327 | .097 | .003 |
| 36000. | 59. | .162 | .042 | .002 |
| 38000. | 25. | .047 | .020 | .002 |
| 40000. | 10. | .034 | .008 | .001 |
| 42000. | 2. | .023 | .012 | .001 |
| 44000. | 1. | .015 | .015 | .015 |
| 46000. | 1. | .010 | .010 | .010 |
| 48000. | 1. | .007 | .007 | .007 |
| 50000. | 1. | .005 | .005 | .005 |

TABLE XV (CONT)
 MEAN AND EXTREME WIND MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|-------|---------|
| 5000. | 411. | 12.040 | 5.031 | 1.718 |
| 6000. | 410. | 10.535 | 4.390 | 1.709 |
| 7000. | 413. | 11.524 | 4.111 | .593 |
| 8000. | 415. | 10.829 | 3.778 | .169 |
| 9000. | 416. | 9.437 | 3.450 | 1.106 |
| 10000. | 415. | 8.807 | 3.067 | .748 |
| 11000. | 409. | 8.664 | 2.763 | .590 |
| 12000. | 404. | 8.463 | 2.428 | .398 |
| 13000. | 397. | 7.575 | 2.086 | .077 |
| 14000. | 384. | 6.879 | 1.801 | .130 |
| 15000. | 372. | 5.864 | 1.504 | .120 |
| 16000. | 362. | 5.376 | 1.268 | .196 |
| 18000. | 355. | 4.642 | .956 | .038 |
| 20000. | 349. | 3.956 | .712 | .061 |
| 22000. | 345. | 2.958 | .542 | .118 |
| 24000. | 336. | 2.178 | .415 | .136 |
| 26000. | 327. | 1.621 | .315 | .091 |
| 28000. | 325. | 1.232 | .220 | .012 |
| 30000. | 287. | .923 | .154 | .014 |
| 32000. | 152. | .535 | .114 | .004 |
| 34000. | 89. | .347 | .060 | .002 |
| 36000. | 29. | .221 | .035 | .001 |
| 38000. | 11. | .119 | .031 | .001 |
| 40000. | 3. | .024 | .019 | .016 |
| 42000. | 0. | .000 | .000 | .000 |
| 44000. | 0. | .000 | .000 | .000 |
| 46000. | 0. | .000 | .000 | .000 |
| 48000. | 0. | .000 | .000 | .000 |
| 50000. | 0. | .000 | .000 | .000 |

TABLE XV (CONT)
 LEAD AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | NOVEMBER | | |
|--------------------------------|-----------------------|----------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 5000. | 408. | 7.684 | 3.652 | 1.123 |
| 6000. | 407. | 8.056 | 3.250 | 1.138 |
| 7000. | 407. | 8.248 | 3.038 | 1.107 |
| 8000. | 408. | 8.717 | 2.800 | .770 |
| 9000. | 405. | 7.766 | 2.515 | .663 |
| 10000. | 399. | 7.102 | 2.256 | .568 |
| 11000. | 394. | 6.021 | 1.952 | .091 |
| 12000. | 394. | 5.687 | 1.672 | .214 |
| 13000. | 387. | 5.701 | 1.490 | .118 |
| 14000. | 347. | 5.448 | 1.289 | .029 |
| 15000. | 380. | 5.440 | 1.120 | .031 |
| 16000. | 389. | 4.865 | .980 | .215 |
| 18000. | 372. | 3.863 | .804 | .121 |
| 20000. | 358. | 3.253 | .634 | .061 |
| 22000. | 345. | 2.820 | .506 | .100 |
| 24000. | 324. | 2.086 | .383 | .021 |
| 26000. | 293. | 1.711 | .277 | .012 |
| 28000. | 269. | 1.249 | .201 | .006 |
| 30000. | 204. | .743 | .137 | .003 |
| 32000. | 107. | .450 | .085 | .004 |
| 34000. | 62. | .282 | .041 | .002 |
| 36000. | 20. | .034 | .013 | .001 |
| 38000. | 5. | .004 | .003 | .002 |
| 40000. | 0. | .000 | .000 | .000 |
| 42000. | 0. | .000 | .000 | .000 |
| 44000. | 0. | .000 | .000 | .000 |
| 46000. | 0. | .000 | .000 | .000 |
| 48000. | 0. | .000 | .000 | .000 |
| 50000. | 0. | .000 | .000 | .000 |

TABLE XV (CONT)
 MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|-------|---------|
| 5000. | 327. | 7.368 | 2.860 | .355 |
| 6000. | 328. | 7.070 | 2.586 | .401 |
| 7000. | 327. | 7.403 | 2.453 | .524 |
| 8000. | 327. | 6.457 | 2.206 | .438 |
| 9000. | 324. | 5.749 | 1.949 | .319 |
| 10000. | 319. | 6.173 | 1.763 | .035 |
| 11000. | 315. | 5.479 | 1.580 | .057 |
| 12000. | 311. | 5.456 | 1.395 | .045 |
| 13000. | 310. | 5.343 | 1.213 | .021 |
| 14000. | 307. | 4.316 | 1.072 | .058 |
| 15000. | 305. | 3.725 | .923 | .038 |
| 16000. | 301. | 3.348 | .815 | .153 |
| 18000. | 297. | 2.630 | .626 | .055 |
| 20000. | 291. | 2.311 | .487 | .012 |
| 22000. | 288. | 1.298 | .379 | .054 |
| 24000. | 279. | 1.130 | .283 | .007 |
| 26000. | 260. | .731 | .199 | .008 |
| 28000. | 233. | .535 | .139 | .003 |
| 30000. | 156. | .345 | .089 | .002 |
| 32000. | 63. | .191 | .053 | .002 |
| 34000. | 28. | .056 | .022 | .002 |
| 36000. | 3. | .019 | .016 | .011 |
| 38000. | 2. | .002 | .001 | .001 |
| 40000. | 0. | .000 | .000 | .000 |
| 42000. | 0. | .000 | .000 | .000 |
| 44000. | 0. | .000 | .000 | .000 |
| 46000. | 0. | .000 | .000 | .000 |
| 48000. | 0. | .000 | .000 | .000 |
| 50000. | 0. | .000 | .000 | .000 |

TABLE XVI
 MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | JANUARY | | |
|--------------------------------|-----------------------|---------|------|
| | TOTAL OBSERVATIONS | MAXIMUM | MEAN |
| 4400.- 6000. | 338. | .104 | .079 |
| 6000.- 8000. | 403. | .324 | .127 |
| 8000.- 10000. | 400. | .214 | .099 |
| 10000.- 12000. | 394. | .220 | .075 |
| 12000.- 14000. | 399. | .176 | .057 |
| 14000.- 16000. | 393. | .149 | .042 |
| 16000.- 18000. | 386. | .145 | .030 |
| 18000.- 20000. | 361. | .107 | .021 |
| 20000.- 22000. | 344. | .071 | .015 |
| 22000.- 24000. | 333. | .042 | .010 |
| 24000.- 26000. | 304. | .027 | .006 |
| 26000.- 28000. | 253. | .016 | .004 |
| 28000.- 30000. | 183. | .009 | .003 |
| 30000.- 32000. | 93. | .006 | .002 |
| 32000.- 34000. | 41. | .003 | .001 |
| 34000.- 36000. | 8. | .001 | .000 |
| 36000.- 38000. | 0. | .000 | .000 |
| 38000.- 40000. | 0. | .000 | .000 |
| 40000.- 42000. | 0. | .000 | .000 |
| 42000.- 44000. | 0. | .000 | .000 |
| 44000.- 46000. | 0. | .000 | .000 |
| 46000.- 48000. | 0. | .000 | .000 |
| 48000.- 50000. | 0. | .000 | .000 |

TABLE XVI (CONT)
 MEAN AND EXTREME UNDER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

FEBRUARY

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|------|---------|
| 4940.- - 6000. | 325. | .198 | .076 | .028 |
| 6000.- - 8000. | 426. | .339 | .123 | .028 |
| 8000.- - 10000. | 426. | .270 | .097 | .016 |
| 10000.- - 12000. | 421. | .217 | .072 | .019 |
| 12000.- - 14000. | 418. | .190 | .050 | .010 |
| 14000.- - 16000. | 415. | .138 | .035 | .006 |
| 16000.- - 18000. | 419. | .105 | .026 | .004 |
| 18000.- - 20000. | 400. | .082 | .019 | .003 |
| 20000.- - 22000. | 378. | .061 | .013 | .001 |
| 22000.- - 24000. | 343. | .044 | .010 | .001 |
| 24000.- - 26000. | 317. | .030 | .007 | .001 |
| 26000.- - 28000. | 271. | .020 | .004 | .001 |
| 28000.- - 30000. | 186. | .012 | .003 | .000 |
| 30000.- - 32000. | 86. | .008 | .002 | .000 |
| 32000.- - 34000. | 32. | .005 | .001 | .000 |
| 34000.- - 36000. | 13. | .002 | .001 | .000 |
| 36000.- - 38000. | 4. | .000 | .000 | .000 |
| 38000.- - 40000. | 1. | .000 | .000 | .000 |
| 40000.- - 42000. | 0. | .000 | .000 | .000 |
| 42000.- - 44000. | 0. | .000 | .000 | .000 |
| 44000.- - 46000. | 0. | .000 | .000 | .000 |
| 46000.- - 48000. | 0. | .000 | .000 | .000 |
| 48000.- - 50000. | 0. | .000 | .000 | .000 |

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 TABLE XVI (CONT)
 SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE FSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|------|---------|
| 4440.- 6600. | 352. | .239 | .087 | .023 |
| 6000.- 8600. | 447. | .356 | .131 | .041 |
| 8000.- 10000. | 446. | .268 | .104 | .029 |
| 10000.- 12000. | 438. | .226 | .078 | .019 |
| 12000.- 14000. | 430. | .149 | .056 | .009 |
| 14000.- 16000. | 436. | .112 | .039 | .006 |
| 16000.- 18000. | 434. | .114 | .028 | .003 |
| 18000.- 20000. | 424. | .080 | .020 | .002 |
| 20000.- 22000. | 399. | .051 | .015 | .001 |
| 22000.- 24000. | 369. | .040 | .010 | .001 |
| 24000.- 26000. | 328. | .023 | .007 | .001 |
| 26000.- 28000. | 279. | .016 | .005 | .000 |
| 28000.- 30000. | 196. | .010 | .003 | .000 |
| 30000.- 32000. | 100. | .005 | .002 | .000 |
| 32000.- 34000. | 37. | .002 | .001 | .000 |
| 34000.- 36000. | 8. | .001 | .001 | .000 |
| 36000.- 38000. | 3. | .001 | .001 | .000 |
| 38000.- 40000. | 3. | .001 | .001 | .000 |
| 40000.- 42000. | 3. | .001 | .001 | .000 |
| 42000.- 44000. | 3. | .001 | .001 | .000 |
| 44000.- 46000. | 2. | .001 | .000 | .000 |
| 46000.- 48000. | 2. | .000 | .000 | .000 |
| 48000.- 50000. | 2. | .000 | .000 | .000 |

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 TABLE XVI (CONT)
 SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | APRIL | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940.- - 6000. | 345. | .245 | .099 | .040 |
| 6000.- - 7000. | 464. | .359 | .156 | .061 |
| 7000.- - 8000. | 465. | .312 | .122 | .035 |
| 8000.- - 9000. | 464. | .223 | .092 | .028 |
| 9000.- - 10000. | 464. | .173 | .068 | .019 |
| 10000.- - 11000. | 465. | .155 | .049 | .013 |
| 11000.- - 12000. | 458. | .117 | .033 | .008 |
| 12000.- - 13000. | 418. | .090 | .022 | .005 |
| 13000.- - 14000. | 389. | .067 | .015 | .003 |
| 14000.- - 15000. | 371. | .044 | .011 | .002 |
| 15000.- - 16000. | 350. | .028 | .008 | .001 |
| 16000.- - 17000. | 310. | .016 | .005 | .001 |
| 17000.- - 18000. | 259. | .009 | .003 | .000 |
| 18000.- - 19000. | 146. | .005 | .002 | .000 |
| 19000.- - 20000. | 63. | .002 | .001 | .000 |
| 20000.- - 21000. | 19. | .001 | .000 | .000 |
| 21000.- - 22000. | 7. | .000 | .000 | .000 |
| 22000.- - 23000. | 0. | .000 | .000 | .000 |
| 23000.- - 24000. | 0. | .000 | .000 | .000 |
| 24000.- - 25000. | 0. | .000 | .000 | .000 |
| 25000.- - 26000. | 0. | .000 | .000 | .000 |
| 26000.- - 27000. | 0. | .000 | .000 | .000 |
| 27000.- - 28000. | 0. | .000 | .000 | .000 |
| 28000.- - 29000. | 0. | .000 | .000 | .000 |
| 29000.- - 30000. | 0. | .000 | .000 | .000 |
| 30000.- - 31000. | 0. | .000 | .000 | .000 |
| 31000.- - 32000. | 0. | .000 | .000 | .000 |
| 32000.- - 33000. | 0. | .000 | .000 | .000 |
| 33000.- - 34000. | 0. | .000 | .000 | .000 |
| 34000.- - 35000. | 0. | .000 | .000 | .000 |
| 35000.- - 36000. | 0. | .000 | .000 | .000 |
| 36000.- - 37000. | 0. | .000 | .000 | .000 |
| 37000.- - 38000. | 0. | .000 | .000 | .000 |
| 38000.- - 39000. | 0. | .000 | .000 | .000 |
| 39000.- - 40000. | 0. | .000 | .000 | .000 |
| 40000.- - 41000. | 0. | .000 | .000 | .000 |
| 41000.- - 42000. | 0. | .000 | .000 | .000 |
| 42000.- - 43000. | 0. | .000 | .000 | .000 |
| 43000.- - 44000. | 0. | .000 | .000 | .000 |
| 44000.- - 45000. | 0. | .000 | .000 | .000 |
| 45000.- - 46000. | 0. | .000 | .000 | .000 |
| 46000.- - 47000. | 0. | .000 | .000 | .000 |
| 47000.- - 48000. | 0. | .000 | .000 | .000 |
| 48000.- - 49000. | 0. | .000 | .000 | .000 |
| 49000.- - 50000. | 0. | .000 | .000 | .000 |

TABLE XVI (CONT)
 MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAY | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4040.- - 6000. | 414. | .294 | .135 | .030 |
| 6000.- - 8000. | 463. | .402 | .206 | .042 |
| 8000.- - 10000. | 463. | .392 | .164 | .033 |
| 10000.- - 12000. | 460. | .311 | .127 | .026 |
| 12000.- - 14000. | 459. | .236 | .094 | .014 |
| 14000.- - 16000. | 453. | .175 | .070 | .015 |
| 16000.- - 18000. | 449. | .142 | .049 | .005 |
| 18000.- - 20000. | 435. | .106 | .033 | .007 |
| 20000.- - 22000. | 427. | .075 | .022 | .004 |
| 22000.- - 24000. | 423. | .044 | .014 | .002 |
| 24000.- - 26000. | 410. | .036 | .010 | .001 |
| 26000.- - 28000. | 390. | .022 | .006 | .001 |
| 28000.- - 30000. | 340. | .013 | .004 | .000 |
| 30000.- - 32000. | 231. | .010 | .003 | .000 |
| 32000.- - 34000. | 137. | .005 | .001 | .000 |
| 34000.- - 36000. | 43. | .002 | .001 | .000 |
| 36000.- - 38000. | 10. | .001 | .000 | .000 |
| 38000.- - 40000. | 2. | .000 | .000 | .000 |
| 40000.- - 42000. | 0. | .000 | .000 | .000 |
| 42000.- - 44000. | 0. | .000 | .000 | .000 |
| 44000.- - 46000. | 0. | .000 | .000 | .000 |
| 46000.- - 48000. | 0. | .000 | .000 | .000 |
| 48000.- - 50000. | 0. | .000 | .000 | .000 |

TABLE XVI (CONT)
 MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | JUNE | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940.- 6000. | 320. | .394 | .192 | .041 |
| 6000.- 8000. | 351. | .646 | .294 | .085 |
| 8000.- 10000. | 351. | .567 | .234 | .068 |
| 10000.- 12000. | 349. | .444 | .184 | .051 |
| 12000.- 14000. | 349. | .334 | .141 | .036 |
| 14000.- 16000. | 347. | .265 | .104 | .008 |
| 16000.- 18000. | 341. | .222 | .074 | .006 |
| 18000.- 20000. | 329. | .192 | .050 | .007 |
| 20000.- 22000. | 321. | .169 | .033 | .004 |
| 22000.- 24000. | 313. | .119 | .022 | .005 |
| 24000.- 26000. | 304. | .049 | .014 | .003 |
| 26000.- 28000. | 299. | .027 | .009 | .003 |
| 28000.- 30000. | 281. | .020 | .006 | .001 |
| 30000.- 32000. | 220. | .013 | .004 | .001 |
| 32000.- 34000. | 180. | .011 | .003 | .001 |
| 34000.- 36000. | 98. | .006 | .001 | .000 |
| 36000.- 38000. | 54. | .003 | .001 | .000 |
| 38000.- 40000. | 29. | .001 | .001 | .000 |
| 40000.- 42000. | 20. | .001 | .000 | .000 |
| 42000.- 44000. | 14. | .001 | .000 | .000 |
| 44000.- 46000. | 12. | .001 | .000 | .000 |
| 46000.- 48000. | 12. | .000 | .000 | .000 |
| 48000.- 50000. | 12. | .000 | .000 | .000 |

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 TABLE XVI (CONT)
 SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | JULY | |
|--------------------------------|-----------------------|---------|------|
| | | MAXIMUM | MEAN |
| 4940.- 6600. | 230. | .443 | .308 |
| 6000.- 5000. | 250. | .747 | .450 |
| 8000.- 10000. | 257. | .639 | .367 |
| 10000.- 12000. | 257. | .508 | .292 |
| 12000.- 14000. | 258. | .405 | .226 |
| 14000.- 16000. | 258. | .316 | .173 |
| 16000.- 18000. | 257. | .247 | .128 |
| 18000.- 20000. | 252. | .201 | .090 |
| 20000.- 22000. | 241. | .154 | .060 |
| 22000.- 24000. | 237. | .119 | .039 |
| 24000.- 26000. | 225. | .084 | .026 |
| 26000.- 28000. | 223. | .056 | .017 |
| 28000.- 30000. | 222. | .034 | .011 |
| 30000.- 32000. | 203. | .018 | .007 |
| 32000.- 34000. | 177. | .011 | .004 |
| 34000.- 36000. | 134. | .006 | .002 |
| 36000.- 38000. | 86. | .003 | .001 |
| 38000.- 40000. | 57. | .002 | .000 |
| 40000.- 42000. | 32. | .001 | .000 |
| 42000.- 44000. | 22. | .001 | .000 |
| 44000.- 46000. | 22. | .000 | .000 |
| 46000.- 48000. | 21. | .000 | .000 |
| 48000.- 50000. | 21. | .000 | .000 |

TABLE XVI (CONT)
 PEAK AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | AUGUST | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940.- 6000. | 276. | .435 | .294 | .178 |
| 6000.- 8000. | 305. | .675 | .447 | .242 |
| 8000.- 10000. | 306. | .592 | .363 | .166 |
| 10000.- 12000. | 306. | .456 | .288 | .084 |
| 12000.- 14000. | 306. | .366 | .222 | .040 |
| 14000.- 16000. | 306. | .299 | .166 | .031 |
| 16000.- 18000. | 306. | .236 | .118 | .023 |
| 18000.- 20000. | 301. | .174 | .079 | .015 |
| 20000.- 22000. | 289. | .136 | .052 | .006 |
| 22000.- 24000. | 287. | .097 | .034 | .008 |
| 24000.- 26000. | 285. | .065 | .022 | .001 |
| 26000.- 28000. | 282. | .043 | .015 | .002 |
| 28000.- 30000. | 277. | .028 | .010 | .002 |
| 30000.- 32000. | 245. | .016 | .007 | .001 |
| 32000.- 34000. | 222. | .013 | .004 | .000 |
| 34000.- 36000. | 157. | .007 | .002 | .000 |
| 36000.- 38000. | 95. | .004 | .001 | .000 |
| 38000.- 40000. | 51. | .002 | .001 | .000 |
| 40000.- 42000. | 15. | .001 | .000 | .000 |
| 42000.- 44000. | 6. | .000 | .000 | .000 |
| 44000.- 46000. | 2. | .000 | .000 | .000 |
| 46000.- 48000. | 2. | .000 | .000 | .000 |
| 48000.- 50000. | 2. | .000 | .000 | .000 |

TABLE XVI (CONT)
 MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973
 SEPTEMBER

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|------|---------|
| 4440.- 6000. | 283. | .414 | .243 | .075 |
| 6000.- 8000. | 325. | .661 | .362 | .133 |
| 8000.- 10000. | 325. | .557 | .287 | .099 |
| 10000.- 12000. | 324. | .413 | .221 | .054 |
| 12000.- 14000. | 324. | .324 | .164 | .036 |
| 14000.- 16000. | 321. | .284 | .113 | .021 |
| 16000.- 18000. | 315. | .219 | .075 | .007 |
| 18000.- 20000. | 311. | .170 | .048 | .003 |
| 20000.- 22000. | 296. | .123 | .032 | .005 |
| 22000.- 24000. | 294. | .086 | .021 | .006 |
| 24000.- 26000. | 289. | .064 | .014 | .004 |
| 26000.- 28000. | 283. | .041 | .010 | .001 |
| 28000.- 30000. | 267. | .027 | .007 | .001 |
| 30000.- 32000. | 201. | .017 | .005 | .001 |
| 32000.- 34000. | 162. | .010 | .003 | .000 |
| 34000.- 36000. | 99. | .005 | .002 | .000 |
| 36000.- 38000. | 43. | .002 | .001 | .000 |
| 38000.- 40000. | 18. | .001 | .000 | .000 |
| 40000.- 42000. | 3. | .001 | .000 | .000 |
| 42000.- 44000. | 1. | .000 | .000 | .000 |
| 44000.- 46000. | 1. | .000 | .000 | .000 |
| 46000.- 48000. | 1. | .000 | .000 | .000 |
| 48000.- 50000. | 1. | .000 | .000 | .000 |

TABLE XVI (CONT)
 MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | OCTOBER | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940.- 6000. | 250. | .367 | .146 | .057 |
| 6000.- 8000. | 303. | .577 | .226 | .090 |
| 8000.- 10000. | 303. | .513 | .179 | .027 |
| 10000.- 12000. | 301. | .425 | .137 | .037 |
| 12000.- 14000. | 295. | .347 | .101 | .017 |
| 14000.- 16000. | 293. | .254 | .069 | .010 |
| 16000.- 18000. | 294. | .210 | .045 | .012 |
| 18000.- 20000. | 297. | .170 | .031 | .005 |
| 20000.- 22000. | 294. | .129 | .023 | .005 |
| 22000.- 24000. | 291. | .088 | .016 | .004 |
| 24000.- 26000. | 282. | .062 | .011 | .004 |
| 26000.- 28000. | 279. | .044 | .008 | .002 |
| 28000.- 30000. | 251. | .030 | .005 | .001 |
| 30000.- 32000. | 187. | .014 | .004 | .001 |
| 32000.- 34000. | 122. | .011 | .002 | .000 |
| 34000.- 36000. | 48. | .006 | .001 | .000 |
| 36000.- 38000. | 17. | .004 | .001 | .000 |
| 38000.- 40000. | 3. | .001 | .001 | .000 |
| 40000.- 42000. | 0. | .000 | .000 | .000 |
| 42000.- 44000. | 0. | .000 | .000 | .000 |
| 44000.- 46000. | 0. | .000 | .000 | .000 |
| 46000.- 48000. | 0. | .000 | .000 | .000 |
| 48000.- 50000. | 0. | .000 | .000 | .000 |

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 TABLE XVI (CONT)
 SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | NOVEMBER | | |
|--------------------------------|-----------------------|----------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940.- - 5000. | 273. | .222 | .113 | .043 |
| 6000.- - 8000. | 333. | .434 | .175 | .059 |
| 8000.- - 10000. | 332. | .379 | .138 | .041 |
| 10000.- - 12000. | 330. | .277 | .099 | .023 |
| 12000.- - 14000. | 325. | .248 | .070 | .016 |
| 14000.- - 16000. | 325. | .226 | .052 | .007 |
| 16000.- - 18000. | 320. | .183 | .039 | .010 |
| 18000.- - 20000. | 313. | .138 | .029 | .004 |
| 20000.- - 22000. | 297. | .091 | .022 | .004 |
| 22000.- - 24000. | 270. | .057 | .016 | .003 |
| 24000.- - 26000. | 245. | .042 | .011 | .001 |
| 26000.- - 28000. | 233. | .025 | .008 | .001 |
| 28000.- - 30000. | 208. | .013 | .005 | .001 |
| 30000.- - 32000. | 139. | .004 | .003 | .001 |
| 32000.- - 34000. | 89. | .004 | .002 | .000 |
| 34000.- - 36000. | 38. | .002 | .001 | .000 |
| 36000.- - 38000. | 0. | .000 | .000 | .000 |
| 38000.- - 40000. | 0. | .000 | .000 | .000 |
| 40000.- - 42000. | 0. | .000 | .000 | .000 |
| 42000.- - 44000. | 0. | .000 | .000 | .000 |
| 44000.- - 46000. | 0. | .000 | .000 | .000 |
| 46000.- - 48000. | 0. | .000 | .000 | .000 |
| 48000.- - 50000. | 0. | .000 | .000 | .000 |

MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 TABLE XVI (CONT)
 SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | DECEMBER | | |
|--------------------------------|-----------------------|----------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4000.- 6000. | 206. | .192 | .098 | .030 |
| 6000.- 8000. | 237. | .368 | .147 | .044 |
| 8000.- 10000. | 237. | .266 | .114 | .027 |
| 10000.- 12000. | 257. | .282 | .087 | .016 |
| 12000.- 14000. | 257. | .235 | .063 | .015 |
| 14000.- 16000. | 233. | .160 | .043 | .011 |
| 16000.- 18000. | 231. | .112 | .031 | .005 |
| 18000.- 20000. | 226. | .043 | .022 | .005 |
| 20000.- 22000. | 219. | .056 | .017 | .003 |
| 22000.- 24000. | 211. | .031 | .012 | .002 |
| 24000.- 26000. | 200. | .027 | .008 | .001 |
| 26000.- 28000. | 179. | .014 | .005 | .001 |
| 28000.- 30000. | 135. | .013 | .003 | .000 |
| 30000.- 32000. | 58. | .007 | .003 | .000 |
| 32000.- 34000. | 28. | .003 | .001 | .000 |
| 34000.- 36000. | 4. | .001 | .001 | .001 |
| 36000.- 38000. | 2. | .000 | .000 | .000 |
| 38000.- 40000. | 0. | .000 | .000 | .000 |
| 40000.- 42000. | 0. | .000 | .000 | .000 |
| 42000.- 44000. | 0. | .000 | .000 | .000 |
| 44000.- 46000. | 0. | .000 | .000 | .000 |
| 46000.- 48000. | 0. | .000 | .000 | .000 |
| 48000.- 50000. | 0. | .000 | .000 | .000 |

TABLE XVII
 STATION AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
 AT SELECTED LEVELS BY MONTHS
 STATION: SITE
 PERIOD OF RECORD 1961-1973

| GEOGRAPHIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | JANUARY | | |
|---------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 1940. | 349. | 99. | 44. | 11. |
| 5000. | 417. | 99. | 43. | 6. |
| 6000. | 418. | 99. | 37. | 10. |
| 7000. | 417. | 99. | 36. | 10. |
| 8000. | 417. | 99. | 35. | 10. |
| 9000. | 415. | 99. | 34. | 5. |
| 10000. | 412. | 99. | 33. | 3. |
| 11000. | 412. | 99. | 32. | 1. |
| 12000. | 410. | 100. | 32. | 3. |
| 13000. | 407. | 99. | 31. | 2. |
| 14000. | 406. | 99. | 30. | 1. |
| 15000. | 398. | 99. | 30. | 2. |
| 16000. | 396. | 99. | 29. | 2. |
| 18000. | 387. | 99. | 29. | 1. |
| 20000. | 374. | 99. | 29. | 3. |
| 22000. | 363. | 99. | 29. | 6. |
| 24000. | 352. | 99. | 28. | 1. |
| 26000. | 319. | 99. | 27. | 1. |
| 28000. | 247. | 96. | 23. | 1. |
| 30000. | 155. | 79. | 18. | 1. |
| 32000. | 75. | 66. | 17. | 1. |
| 34000. | 30. | 34. | 9. | 1. |
| 36000. | 6. | 16. | 6. | 1. |
| 38000. | 0. | 0. | 0. | 0. |
| 40000. | 0. | 0. | 0. | 0. |
| 42000. | 0. | 0. | 0. | 0. |
| 44000. | 0. | 0. | 0. | 0. |
| 46000. | 0. | 0. | 0. | 0. |
| 48000. | 0. | 0. | 0. | 0. |
| 50000. | 0. | 0. | 0. | 0. |

TABLE XVII (CONT)
 MEAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOGRAPHIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | FEBRUARY | | |
|---------------------------------|-----------------------|----------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 337. | 98. | 41. | 9. |
| 5000. | 446. | 98. | 39. | 5. |
| 6000. | 645. | 99. | 37. | 9. |
| 7000. | 445. | 94. | 38. | 13. |
| 8000. | 442. | 90. | 39. | 5. |
| 9000. | 442. | 100. | 34. | 2. |
| 10000. | 438. | 100. | 39. | 6. |
| 11000. | 454. | 100. | 38. | 2. |
| 12000. | 431. | 99. | 36. | 3. |
| 13000. | 428. | 99. | 34. | 2. |
| 14000. | 425. | 99. | 32. | 1. |
| 15000. | 421. | 99. | 31. | 1. |
| 16000. | 422. | 99. | 31. | 2. |
| 17000. | 421. | 99. | 30. | 1. |
| 20000. | 406. | 99. | 30. | 1. |
| 22000. | 390. | 91. | 30. | 1. |
| 24000. | 359. | 99. | 31. | 1. |
| 26000. | 326. | 79. | 29. | 1. |
| 28000. | 250. | 70. | 27. | 1. |
| 30000. | 164. | 69. | 23. | 1. |
| 32000. | 63. | 67. | 20. | 1. |
| 34000. | 37. | 47. | 15. | 1. |
| 36000. | 13. | 25. | 13. | 1. |
| 38000. | 4. | 14. | 9. | 1. |
| 40000. | 1. | 2. | 2. | 2. |
| 42000. | 0. | 0. | 0. | 0. |
| 44000. | 0. | 0. | 0. | 0. |
| 46000. | 0. | 0. | 0. | 0. |
| 48000. | 0. | 0. | 0. | 0. |
| 50000. | 0. | 0. | 0. | 0. |

TABLE XVII (CONT)
 MEAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MARCH | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 361. | 49. | 33. | 6. |
| 5000. | 456. | 49. | 33. | 6. |
| 6000. | 455. | 49. | 32. | 3. |
| 7000. | 457. | 49. | 33. | 1. |
| 8000. | 453. | 49. | 35. | 3. |
| 9000. | 453. | 100. | 36. | 3. |
| 10000. | 451. | 99. | 37. | 2. |
| 11000. | 446. | 49. | 37. | 2. |
| 12000. | 445. | 99. | 36. | 1. |
| 13000. | 444. | 99. | 35. | 1. |
| 14000. | 440. | 99. | 33. | 2. |
| 15000. | 439. | 49. | 32. | 1. |
| 16000. | 437. | 99. | 31. | 1. |
| 18000. | 426. | 49. | 31. | 1. |
| 20000. | 420. | 49. | 31. | 1. |
| 22000. | 396. | 49. | 31. | 1. |
| 24000. | 375. | 95. | 30. | 3. |
| 26000. | 318. | 79. | 29. | 1. |
| 28000. | 246. | 70. | 27. | 1. |
| 30000. | 167. | 64. | 21. | 1. |
| 32000. | 92. | 52. | 16. | 1. |
| 34000. | 37. | 26. | 11. | 1. |
| 36000. | 9. | 26. | 11. | 2. |
| 38000. | 4. | 25. | 16. | 4. |
| 40000. | 3. | 25. | 20. | 14. |
| 42000. | 3. | 25. | 19. | 14. |
| 44000. | 3. | 25. | 19. | 15. |
| 46000. | 2. | 25. | 20. | 15. |
| 48000. | 2. | 25. | 20. | 15. |
| 50000. | 2. | 25. | 20. | 15. |

TABLE XVII (CONT)
 MEAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | APRIL | | | |
|--------------------------------|-----------------------|---------|------|---------|
| | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
| 4940. | 345. | 97. | 27. | 4. |
| 5000. | 513. | 97. | 26. | 1. |
| 6000. | 503. | 98. | 27. | 1. |
| 7000. | 504. | 99. | 28. | 1. |
| 8000. | 448. | 99. | 30. | 2. |
| 9000. | 448. | 99. | 31. | 1. |
| 10000. | 498. | 99. | 32. | 2. |
| 11000. | 407. | 99. | 32. | 1. |
| 12000. | 489. | 99. | 33. | 4. |
| 13000. | 483. | 94. | 33. | 2. |
| 14000. | 477. | 92. | 33. | 1. |
| 15000. | 468. | 98. | 32. | 3. |
| 16000. | 463. | 99. | 31. | 1. |
| 17000. | 448. | 94. | 28. | 1. |
| 20000. | 413. | 87. | 28. | 1. |
| 22000. | 393. | 87. | 26. | 3. |
| 24000. | 371. | 88. | 27. | 1. |
| 26000. | 339. | 74. | 26. | 2. |
| 28000. | 292. | 62. | 24. | 2. |
| 30000. | 207. | 57. | 19. | 1. |
| 32000. | 105. | 58. | 12. | 1. |
| 34000. | 44. | 27. | 8. | 1. |
| 35000. | 14. | 14. | 7. | 1. |
| 38000. | 5. | 5. | 3. | 1. |
| 40000. | 0. | 0. | 0. | 0. |
| 42000. | 0. | 0. | 0. | 0. |
| 44000. | 0. | 0. | 0. | 0. |
| 46000. | 0. | 0. | 0. | 0. |
| 48000. | 0. | 0. | 0. | 0. |
| 50000. | 0. | 0. | 0. | 0. |

TABLE XVII (CONT)
 MEAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOGRAPHIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAY | | |
|---------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 385. | 94. | 26. | 4. |
| 5000. | 431. | 91. | 26. | 2. |
| 5000. | 428. | 97. | 26. | 2. |
| 7000. | 424. | 100. | 27. | 1. |
| 8000. | 422. | 100. | 28. | 1. |
| 9000. | 422. | 100. | 29. | 3. |
| 10000. | 427. | 97. | 30. | 1. |
| 11000. | 424. | 97. | 30. | 1. |
| 12000. | 424. | 99. | 31. | 1. |
| 13000. | 423. | 99. | 31. | 2. |
| 14000. | 421. | 99. | 32. | 1. |
| 15000. | 416. | 99. | 33. | 1. |
| 16000. | 413. | 99. | 34. | 1. |
| 17000. | 407. | 100. | 32. | 3. |
| 20000. | 394. | 99. | 30. | 7. |
| 22000. | 387. | 99. | 27. | 1. |
| 24000. | 381. | 90. | 26. | 1. |
| 26000. | 367. | 80. | 25. | 1. |
| 28000. | 342. | 69. | 25. | 1. |
| 30000. | 245. | 72. | 22. | 1. |
| 32000. | 160. | 64. | 20. | 1. |
| 34000. | 52. | 49. | 12. | 1. |
| 36000. | 31. | 31. | 8. | 1. |
| 38000. | 6. | 20. | 8. | 1. |
| 40000. | 2. | 36. | 22. | 8. |
| 42000. | 1. | 23. | 23. | 23. |
| 44000. | 1. | 15. | 15. | 15. |
| 46000. | 1. | 7. | 7. | 7. |
| 48000. | 0. | 0. | 0. | 0. |
| 50000. | 0. | 0. | 0. | 0. |

TABLE XVII (CONT)
 MEAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | JUNE | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 286. | 95. | 29. | 3. |
| 5000. | 314. | 94. | 28. | 3. |
| 6000. | 313. | 71. | 27. | 2. |
| 7000. | 312. | 76. | 28. | 1. |
| 8000. | 315. | 40. | 29. | 7. |
| 9000. | 314. | 45. | 30. | 10. |
| 10000. | 315. | 73. | 30. | 7. |
| 11000. | 314. | 46. | 31. | 3. |
| 12000. | 315. | 98. | 31. | 1. |
| 13000. | 314. | 94. | 32. | 3. |
| 14000. | 313. | 94. | 33. | 4. |
| 15000. | 309. | 98. | 33. | 1. |
| 16000. | 311. | 99. | 34. | 1. |
| 18000. | 303. | 99. | 34. | 1. |
| 20000. | 293. | 99. | 31. | 2. |
| 22000. | 281. | 99. | 27. | 2. |
| 24000. | 268. | 92. | 25. | 2. |
| 26000. | 257. | 46. | 24. | 5. |
| 28000. | 253. | 41. | 24. | 1. |
| 30000. | 231. | 52. | 22. | 1. |
| 32000. | 161. | 57. | 20. | 1. |
| 34000. | 111. | 60. | 16. | 1. |
| 36000. | 66. | 36. | 12. | 1. |
| 38000. | 38. | 31. | 12. | 1. |
| 40000. | 22. | 29. | 14. | 1. |
| 42000. | 17. | 28. | 17. | 1. |
| 44000. | 14. | 27. | 20. | 1. |
| 46000. | 13. | 26. | 21. | 16. |
| 48000. | 13. | 27. | 21. | 16. |
| 50000. | 13. | 26. | 21. | 16. |

TABLE XVII (CONT.)
 MEAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
 AT SELECTED LEVELS BY MONTHS
 STATION SITF
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE FSL FEET | TOTAL OBSERVATIONS | JULY | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 294. | 94. | 45. | 12. |
| 5000. | 324. | 92. | 43. | 8. |
| 6000. | 323. | 93. | 40. | 3. |
| 7000. | 325. | 94. | 41. | 1. |
| 8000. | 324. | 96. | 42. | 3. |
| 9000. | 324. | 94. | 44. | 8. |
| 10000. | 324. | 93. | 45. | 13. |
| 11000. | 327. | 97. | 45. | 10. |
| 12000. | 327. | 99. | 46. | 10. |
| 13000. | 328. | 96. | 47. | 10. |
| 14000. | 328. | 96. | 48. | 5. |
| 15000. | 327. | 93. | 49. | 10. |
| 16000. | 326. | 99. | 49. | 8. |
| 17000. | 318. | 97. | 47. | 2. |
| 20000. | 308. | 100. | 43. | 7. |
| 22000. | 293. | 99. | 37. | 2. |
| 24000. | 277. | 96. | 31. | 1. |
| 26000. | 259. | 83. | 29. | 1. |
| 28000. | 253. | 74. | 27. | 3. |
| 30000. | 249. | 63. | 25. | 1. |
| 32000. | 220. | 60. | 24. | 1. |
| 34000. | 179. | 68. | 22. | 1. |
| 36000. | 155. | 57. | 16. | 1. |
| 38000. | 64. | 42. | 15. | 1. |
| 40000. | 47. | 35. | 15. | 1. |
| 42000. | 29. | 29. | 19. | 1. |
| 44000. | 22. | 28. | 22. | 16. |
| 46000. | 22. | 30. | 21. | 14. |
| 48000. | 21. | 29. | 21. | 15. |
| 50000. | 21. | 30. | 21. | 15. |

TABLE XVII (CONT)
 MEAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE FSL FEET | AUGUST | | | |
|--------------------------------|-----------------------|---------|------|---------|
| | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
| 4940. | 324. | 95. | 45. | 12. |
| 5000. | 353. | 95. | 45. | 12. |
| 6000. | 352. | 92. | 41. | 1. |
| 7000. | 353. | 94. | 42. | 1. |
| 8000. | 352. | 89. | 43. | 4. |
| 9000. | 355. | 92. | 45. | 5. |
| 10000. | 354. | 95. | 47. | 11. |
| 11000. | 354. | 97. | 48. | 13. |
| 12000. | 353. | 97. | 50. | 10. |
| 13000. | 353. | 98. | 51. | 10. |
| 14000. | 353. | 98. | 51. | 10. |
| 15000. | 351. | 97. | 51. | 6. |
| 16000. | 348. | 99. | 50. | 9. |
| 18000. | 342. | 99. | 45. | 2. |
| 20000. | 324. | 99. | 40. | 2. |
| 22000. | 312. | 99. | 33. | 1. |
| 24000. | 303. | 90. | 30. | 1. |
| 26000. | 298. | 86. | 26. | 1. |
| 28000. | 290. | 90. | 25. | 3. |
| 30000. | 287. | 76. | 24. | 2. |
| 32000. | 253. | 79. | 24. | 1. |
| 34000. | 206. | 71. | 22. | 1. |
| 36000. | 111. | 61. | 13. | 1. |
| 38000. | 64. | 47. | 10. | 1. |
| 40000. | 33. | 34. | 7. | 1. |
| 42000. | 9. | 21. | 8. | 1. |
| 44000. | 4. | 20. | 12. | 2. |
| 46000. | 2. | 20. | 19. | 19. |
| 48000. | 2. | 20. | 19. | 19. |
| 50000. | 2. | 20. | 19. | 19. |

TABLE XVII (CONT)
 MEAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | SEPTEMBER | | |
|--------------------------------|-----------------------|-----------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 293. | 93. | 46. | 14. |
| 5000. | 335. | 93. | 44. | 11. |
| 6000. | 333. | 92. | 41. | 7. |
| 7000. | 334. | 94. | 42. | 3. |
| 8000. | 333. | 96. | 43. | 12. |
| 9000. | 336. | 98. | 44. | 6. |
| 10000. | 334. | 95. | 45. | 13. |
| 11000. | 332. | 97. | 46. | 11. |
| 12000. | 330. | 99. | 47. | 10. |
| 13000. | 328. | 96. | 46. | 9. |
| 14000. | 327. | 95. | 45. | 1. |
| 15000. | 321. | 96. | 43. | 9. |
| 16000. | 307. | 100. | 41. | 8. |
| 18000. | 297. | 99. | 35. | 1. |
| 20000. | 284. | 99. | 29. | 3. |
| 22000. | 269. | 92. | 25. | 2. |
| 24000. | 265. | 97. | 22. | 2. |
| 26000. | 260. | 97. | 22. | 1. |
| 28000. | 252. | 84. | 22. | 1. |
| 30000. | 234. | 60. | 21. | 1. |
| 32000. | 169. | 63. | 23. | 1. |
| 34000. | 100. | 65. | 18. | 1. |
| 36000. | 53. | 30. | 10. | 1. |
| 38000. | 22. | 13. | 7. | 1. |
| 40000. | 10. | 13. | 4. | 1. |
| 42000. | 2. | 14. | 8. | 1. |
| 44000. | 1. | 14. | 14. | 14. |
| 46000. | 1. | 14. | 14. | 14. |
| 48000. | 1. | 15. | 15. | 15. |
| 50000. | 1. | 15. | 15. | 15. |

TABLE XVII (CONT)
 MEAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | OCTOBER | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4900. | 330. | 92. | 37. | 10. |
| 5000. | 380. | 91. | 37. | 10. |
| 5500. | 379. | 88. | 34. | 11. |
| 7000. | 382. | 99. | 34. | 8. |
| 8000. | 384. | 100. | 34. | 11. |
| 9000. | 385. | 100. | 34. | 10. |
| 10000. | 384. | 96. | 34. | 11. |
| 11000. | 378. | 92. | 33. | 10. |
| 12000. | 373. | 92. | 32. | 5. |
| 13000. | 366. | 96. | 30. | 1. |
| 14000. | 353. | 96. | 29. | 2. |
| 15000. | 341. | 96. | 27. | 2. |
| 16000. | 332. | 95. | 25. | 6. |
| 18000. | 325. | 93. | 23. | 1. |
| 20000. | 319. | 95. | 22. | 2. |
| 22000. | 316. | 76. | 22. | 9. |
| 24000. | 308. | 74. | 23. | 10. |
| 26000. | 299. | 87. | 24. | 10. |
| 28000. | 297. | 82. | 24. | 2. |
| 30000. | 259. | 59. | 23. | 3. |
| 32000. | 128. | 63. | 21. | 1. |
| 34000. | 68. | 65. | 13. | 1. |
| 36000. | 26. | 24. | 7. | 1. |
| 38000. | 8. | 9. | 5. | 1. |
| 40000. | 0. | 0. | 0. | 0. |
| 42000. | 0. | 0. | 0. | 0. |
| 44000. | 0. | 0. | 0. | 0. |
| 46000. | 0. | 0. | 0. | 0. |
| 48000. | 0. | 0. | 0. | 0. |
| 50000. | 0. | 0. | 0. | 0. |

TABLE XVII (CONT)
 MEAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

NOVEMBER

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|------|---------|
| 4940. | 315. | 96. | 40. | 9. |
| 5000. | 375. | 94. | 40. | 10. |
| 6000. | 374. | 92. | 38. | 12. |
| 7000. | 374. | 99. | 38. | 12. |
| 8000. | 375. | 99. | 38. | 10. |
| 9000. | 372. | 99. | 37. | 10. |
| 10000. | 366. | 99. | 37. | 8. |
| 11000. | 367. | 99. | 35. | 1. |
| 12000. | 362. | 99. | 33. | 3. |
| 13000. | 355. | 99. | 31. | 2. |
| 14000. | 355. | 99. | 29. | 1. |
| 15000. | 348. | 99. | 28. | 1. |
| 16000. | 348. | 99. | 27. | 5. |
| 18000. | 340. | 99. | 26. | 3. |
| 20000. | 326. | 99. | 28. | 2. |
| 22000. | 313. | 98. | 29. | 6. |
| 24000. | 294. | 100. | 29. | 2. |
| 25000. | 265. | 87. | 29. | 3. |
| 28000. | 242. | 82. | 29. | 2. |
| 30000. | 184. | 80. | 26. | 1. |
| 32000. | 99. | 65. | 21. | 1. |
| 34000. | 57. | 52. | 15. | 1. |
| 36000. | 20. | 18. | 8. | 1. |
| 38000. | 3. | 4. | 4. | 3. |
| 40000. | 0. | 0. | 0. | 0. |
| 42000. | 0. | 0. | 0. | 0. |
| 44000. | 0. | 0. | 0. | 0. |
| 46000. | 0. | 0. | 0. | 0. |
| 48000. | 0. | 0. | 0. | 0. |
| 50000. | 0. | 0. | 0. | 0. |

TABLE XVII (CONT)
 UPPER AIR RELATIVE HUMIDITIES (PER CENT)
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1921-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | DECEMBER | | |
|--------------------------------|-----------------------|----------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 273. | 46. | 49. | 13. |
| 5000. | 303. | 46. | 46. | 8. |
| 5000. | 304. | 49. | 42. | 4. |
| 7000. | 303. | 49. | 42. | 11. |
| 8000. | 303. | 49. | 39. | 11. |
| 9000. | 300. | 49. | 38. | 9. |
| 10000. | 295. | 100. | 37. | 1. |
| 11000. | 291. | 99. | 36. | 1. |
| 12000. | 287. | 100. | 34. | 2. |
| 13000. | 286. | 100. | 32. | 1. |
| 14000. | 283. | 99. | 31. | 1. |
| 15000. | 281. | 95. | 29. | 1. |
| 16000. | 277. | 99. | 29. | 5. |
| 18000. | 273. | 94. | 28. | 2. |
| 20000. | 267. | 99. | 28. | 1. |
| 22000. | 264. | 76. | 29. | 7. |
| 24000. | 257. | 47. | 29. | 1. |
| 26000. | 238. | 75. | 28. | 1. |
| 29000. | 212. | 77. | 26. | 1. |
| 30000. | 137. | 78. | 22. | 1. |
| 32000. | 57. | 71. | 19. | 1. |
| 34000. | 25. | 31. | 11. | 1. |
| 36000. | 3. | 13. | 10. | 6. |
| 33000. | 2. | 2. | 1. | 1. |
| 40000. | 0. | 0. | 0. | 0. |
| 42000. | 0. | 0. | 0. | 0. |
| 44000. | 0. | 0. | 0. | 0. |
| 46000. | 0. | 0. | 0. | 0. |
| 48000. | 0. | 0. | 0. | 0. |
| 50000. | 0. | 0. | 0. | 0. |

TABLE XVIII
 MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY SEASONS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE FSL FEET | TOTAL OBSERVATIONS | WINTER | | |
|--------------------------------|-----------------------|---------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 5000. | 1217. | 8.040 | 2.781 | .290 |
| 6000. | 1219. | 7.090 | 2.446 | .401 |
| 7000. | 1216. | 7.403 | 2.299 | .401 |
| 8000. | 1215. | 6.457 | 2.092 | .170 |
| 9000. | 1208. | 5.789 | 1.890 | .143 |
| 10000. | 1195. | 6.173 | 1.709 | .035 |
| 11000. | 1149. | 5.479 | 1.521 | .057 |
| 12000. | 1180. | 5.456 | 1.340 | .045 |
| 13000. | 1172. | 5.343 | 1.177 | .021 |
| 14000. | 1166. | 4.316 | 1.028 | .027 |
| 15000. | 1152. | 5.066 | .897 | .020 |
| 16000. | 1147. | 4.052 | .796 | .039 |
| 18000. | 1135. | 3.990 | .611 | .010 |
| 20000. | 1099. | 3.283 | .470 | .005 |
| 22000. | 1064. | 2.452 | .354 | .005 |
| 24000. | 1004. | 1.664 | .259 | .005 |
| 26000. | 920. | 1.046 | .181 | .002 |
| 28000. | 744. | .691 | .126 | .001 |
| 30000. | 488. | .421 | .079 | .001 |
| 32000. | 225. | .264 | .050 | .001 |
| 34000. | 96. | .199 | .025 | .001 |
| 36000. | 22. | .153 | .019 | .001 |
| 38000. | 6. | .009 | .004 | .001 |
| 40000. | 1. | .001 | .001 | .001 |
| 42000. | 0. | .000 | .000 | .000 |
| 44000. | 0. | .000 | .000 | .000 |
| 46000. | 0. | .000 | .000 | .000 |
| 48000. | 0. | .000 | .000 | .000 |
| 50000. | 0. | .000 | .000 | .000 |

TABLE XVIII (CONT)
 MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY SEASONS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | SPRING | | |
|--------------------------------|-----------------------|---------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 5000. | 1464. | 9.983 | 3.419 | .200 |
| 6000. | 1455. | 10.093 | 2.972 | .120 |
| 7000. | 1454. | 8.757 | 2.750 | .055 |
| 8000. | 1442. | 7.760 | 2.564 | .129 |
| 9000. | 1442. | 7.455 | 2.346 | .086 |
| 10000. | 1445. | 6.367 | 2.110 | .084 |
| 11000. | 1435. | 6.956 | 1.895 | .058 |
| 12000. | 1422. | 6.912 | 1.693 | .036 |
| 13000. | 1416. | 6.441 | 1.501 | .032 |
| 14000. | 1404. | 6.034 | 1.325 | .032 |
| 15000. | 1390. | 5.569 | 1.166 | .022 |
| 16000. | 1380. | 5.134 | 1.026 | .026 |
| 18000. | 1349. | 4.279 | .752 | .013 |
| 20000. | 1295. | 3.515 | .560 | .010 |
| 22000. | 1239. | 2.334 | .399 | .012 |
| 24000. | 1186. | 1.494 | .291 | .006 |
| 26000. | 1079. | 1.099 | .209 | .004 |
| 28000. | 929. | .754 | .145 | .003 |
| 30000. | 703. | .483 | .090 | .002 |
| 32000. | 363. | .296 | .053 | .001 |
| 34000. | 178. | .137 | .022 | .001 |
| 36000. | 53. | .062 | .011 | .001 |
| 38000. | 14. | .044 | .010 | .001 |
| 40000. | 4. | .042 | .027 | .006 |
| 42000. | 3. | .038 | .032 | .022 |
| 44000. | 3. | .045 | .030 | .019 |
| 46000. | 2. | .034 | .025 | .017 |
| 48000. | 2. | .034 | .026 | .017 |
| 50000. | 2. | .038 | .027 | .015 |

TABLE XVIII (CONT)
 MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY SEASONS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | SUMMER | | |
|--------------------------------|-----------------------|---------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 5000. | 1078. | 16.716 | 8.691 | .908 |
| 6000. | 1075. | 13.346 | 7.212 | .293 |
| 7000. | 1075. | 13.526 | 6.727 | .197 |
| 8000. | 1078. | 13.691 | 6.264 | .714 |
| 9000. | 1080. | 11.749 | 5.819 | .785 |
| 10000. | 1079. | 10.888 | 5.358 | .705 |
| 11000. | 1082. | 10.192 | 4.899 | .272 |
| 12000. | 1082. | 9.256 | 4.467 | .100 |
| 13000. | 1082. | 8.477 | 4.063 | .264 |
| 14000. | 1081. | 7.837 | 3.657 | .279 |
| 15000. | 1074. | 7.204 | 3.265 | .067 |
| 16000. | 1072. | 6.634 | 2.883 | .053 |
| 18000. | 1050. | 5.790 | 2.183 | .044 |
| 20000. | 1011. | 4.868 | 1.565 | .059 |
| 22000. | 967. | 4.553 | 1.071 | .034 |
| 24000. | 929. | 2.995 | .748 | .022 |
| 26000. | 889. | 2.210 | .527 | .022 |
| 28000. | 867. | 1.440 | .368 | .010 |
| 30000. | 839. | .880 | .254 | .006 |
| 32000. | 697. | .667 | .180 | .004 |
| 34000. | 554. | .394 | .113 | .003 |
| 36000. | 503. | .246 | .053 | .003 |
| 38000. | 172. | .122 | .032 | .001 |
| 40000. | 103. | .061 | .021 | .001 |
| 42000. | 54. | .041 | .020 | .001 |
| 44000. | 39. | .036 | .017 | .001 |
| 46000. | 36. | .033 | .012 | .005 |
| 48000. | 35. | .028 | .009 | .005 |
| 50000. | 36. | .030 | .008 | .003 |

TABLE XVIII (CONT.)
 MEAN AND EXTREME UPPER AIR MIXING RATIOS (GRAMS/KILOGRAM) AT SELECTED LEVELS
 BY SEASONS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | FALL | | |
|--------------------------------|-----------------------|---------|-------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 5000. | 1184. | 14.696 | 5.492 | 1.123 |
| 6000. | 1180. | 12.827 | 4.723 | 1.134 |
| 7000. | 1184. | 11.947 | 4.420 | .593 |
| 8000. | 1186. | 11.422 | 4.094 | .169 |
| 9000. | 1187. | 11.424 | 3.738 | .663 |
| 10000. | 1178. | 9.782 | 3.388 | .568 |
| 11000. | 1170. | 8.664 | 3.034 | .091 |
| 12000. | 1158. | 8.463 | 2.689 | .214 |
| 13000. | 1142. | 8.638 | 2.355 | .077 |
| 14000. | 1128. | 7.154 | 2.051 | .029 |
| 15000. | 1103. | 6.929 | 1.742 | .031 |
| 16000. | 1074. | 6.751 | 1.496 | .196 |
| 18000. | 1052. | 6.102 | 1.129 | .026 |
| 20000. | 1014. | 4.540 | .823 | .061 |
| 22000. | 986. | 2.958 | .598 | .068 |
| 24000. | 952. | 2.236 | .438 | .021 |
| 26000. | 905. | 1.711 | .327 | .012 |
| 28000. | 868. | 1.370 | .241 | .006 |
| 30000. | 751. | .923 | .168 | .003 |
| 32000. | 447. | .535 | .128 | .004 |
| 34000. | 270. | .347 | .072 | .002 |
| 36000. | 108. | .221 | .035 | .001 |
| 38000. | 39. | .119 | .022 | .001 |
| 40000. | 13. | .034 | .011 | .001 |
| 42000. | 2. | .023 | .012 | .001 |
| 44000. | 1. | .015 | .015 | .015 |
| 46000. | 1. | .010 | .010 | .010 |
| 48000. | 1. | .007 | .007 | .007 |
| 50000. | 1. | .005 | .005 | .005 |

TABLE XIX
 MEAN AND EXTREME WINTER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY SEASONS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | WINTER | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940.- 6000. | 869. | .198 | .082 | .014 |
| 6000.- 8000. | 1056. | .368 | .130 | .028 |
| 8000.- 10000. | 1063. | .270 | .102 | .016 |
| 10000.- 12000. | 1057. | .282 | .076 | .011 |
| 12000.- 14000. | 1054. | .235 | .055 | .006 |
| 14000.- 16000. | 1044. | .160 | .040 | .003 |
| 16000.- 18000. | 1036. | .145 | .028 | .004 |
| 18000.- 20000. | 987. | .107 | .021 | .003 |
| 20000.- 22000. | 941. | .071 | .015 | .001 |
| 22000.- 24000. | 887. | .044 | .010 | .001 |
| 24000.- 26000. | 821. | .030 | .007 | .001 |
| 26000.- 28000. | 703. | .020 | .005 | .000 |
| 28000.- 30000. | 504. | .013 | .003 | .000 |
| 30000.- 32000. | 237. | .008 | .002 | .000 |
| 32000.- 34000. | 101. | .005 | .001 | .000 |
| 34000.- 36000. | 25. | .002 | .001 | .000 |
| 36000.- 38000. | 6. | .000 | .000 | .000 |
| 38000.- 40000. | 1. | .000 | .000 | .000 |
| 40000.- 42000. | 0. | .000 | .000 | .000 |
| 42000.- 44000. | 0. | .000 | .000 | .000 |
| 44000.- 46000. | 0. | .000 | .000 | .000 |
| 46000.- 48000. | 0. | .000 | .000 | .000 |
| 48000.- 50000. | 0. | .000 | .000 | .000 |

TABLE XIX (CONT)
 MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY SEASONS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | SPRING | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4400.- 6000. | 1111. | .298 | .109 | .023 |
| 6000.- 8000. | 1374. | .462 | .165 | .041 |
| 8000.- 10000. | 1374. | .392 | .130 | .029 |
| 10000.- 12000. | 1562. | .311 | .099 | .019 |
| 12000.- 14000. | 1359. | .236 | .073 | .009 |
| 14000.- 16000. | 1354. | .175 | .053 | .006 |
| 16000.- 18000. | 1341. | .142 | .037 | .003 |
| 18000.- 20000. | 1277. | .106 | .025 | .002 |
| 20000.- 22000. | 1215. | .075 | .017 | .001 |
| 22000.- 24000. | 1163. | .044 | .012 | .001 |
| 24000.- 26000. | 1088. | .036 | .008 | .001 |
| 26000.- 28000. | 937. | .022 | .005 | .000 |
| 28000.- 30000. | 800. | .013 | .003 | .000 |
| 30000.- 32000. | 479. | .010 | .002 | .000 |
| 32000.- 34000. | 237. | .005 | .001 | .000 |
| 34000.- 36000. | 70. | .002 | .001 | .000 |
| 36000.- 38000. | 20. | .001 | .000 | .000 |
| 38000.- 40000. | 5. | .001 | .000 | .000 |
| 40000.- 42000. | 3. | .001 | .001 | .000 |
| 42000.- 44000. | 3. | .001 | .000 | .000 |
| 44000.- 46000. | 2. | .001 | .000 | .000 |
| 46000.- 48000. | 2. | .000 | .000 | .000 |
| 48000.- 50000. | 2. | .000 | .000 | .000 |

TABLE XIX (CONT)
 MEAN AND EXTREME UPPER AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY SEASONS
 STATION SITE
 PERIOD OF RECORD 1961-1973
 SUMMER

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | MINIMUM |
|--------------------------------|-----------------------|---------|------|---------|
| 4900.- 6000. | 826. | .443 | .258 | .041 |
| 6000.- 6600. | 914. | .747 | .389 | .065 |
| 6600.- 10000. | 914. | .639 | .314 | .068 |
| 10000.- 12000. | 912. | .508 | .249 | .051 |
| 12000.- 14000. | 913. | .493 | .192 | .036 |
| 14000.- 16000. | 911. | .316 | .144 | .008 |
| 16000.- 18000. | 994. | .247 | .104 | .006 |
| 18000.- 20000. | 882. | .201 | .071 | .007 |
| 20000.- 22000. | 851. | .199 | .047 | .004 |
| 22000.- 24000. | 837. | .119 | .031 | .005 |
| 24000.- 26000. | 814. | .084 | .020 | .001 |
| 26000.- 28000. | 804. | .056 | .013 | .002 |
| 28000.- 30000. | 780. | .033 | .009 | .001 |
| 30000.- 32000. | 674. | .014 | .006 | .001 |
| 32000.- 34000. | 579. | .013 | .004 | .000 |
| 34000.- 36000. | 389. | .007 | .002 | .000 |
| 36000.- 38000. | 235. | .004 | .001 | .000 |
| 38000.- 40000. | 137. | .002 | .001 | .000 |
| 40000.- 42000. | 67. | .001 | .000 | .000 |
| 42000.- 44000. | 42. | .001 | .000 | .000 |
| 44000.- 46000. | 30. | .001 | .000 | .000 |
| 46000.- 48000. | 35. | .000 | .000 | .000 |
| 48000.- 50000. | 35. | .000 | .000 | .000 |

TABLE XIX (CONT)
 MEAN AND EXTREME MONTHLY AIR PRECIPITABLE WATER (CENTIMETERS) BETWEEN
 SELECTED LEVELS BY SEASONS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | FALL | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940.- - 5000. | 806. | .414 | .169 | .043 |
| 6000.- - 6000. | 961. | .661 | .254 | .059 |
| 8000.- - 10000. | 960. | .557 | .201 | .027 |
| 10000.- - 12000. | 855. | .425 | .153 | .023 |
| 12000.- - 14000. | 845. | .347 | .112 | .016 |
| 14000.- - 16000. | 941. | .284 | .078 | .007 |
| 16000.- - 18000. | 435. | .219 | .053 | .007 |
| 18000.- - 20000. | 921. | .170 | .036 | .003 |
| 20000.- - 22000. | 887. | .129 | .025 | .004 |
| 22000.- - 24000. | 861. | .084 | .018 | .003 |
| 24000.- - 26000. | 815. | .064 | .012 | .001 |
| 26000.- - 28000. | 795. | .044 | .008 | .001 |
| 28000.- - 30000. | 726. | .030 | .006 | .001 |
| 30000.- - 32000. | 527. | .019 | .004 | .001 |
| 32000.- - 34000. | 373. | .011 | .003 | .000 |
| 34000.- - 36000. | 185. | .006 | .001 | .000 |
| 36000.- - 38000. | 66. | .004 | .001 | .000 |
| 38000.- - 40000. | 21. | .001 | .000 | .000 |
| 40000.- - 42000. | 3. | .001 | .000 | .000 |
| 42000.- - 44000. | 1. | .000 | .000 | .000 |
| 44000.- - 46000. | 1. | .000 | .000 | .000 |
| 46000.- - 48000. | 1. | .000 | .000 | .000 |
| 48000.- - 50000. | 1. | .000 | .000 | .000 |

TABLE XX
MEAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY SEASONS
STATION SITE
PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE ASL FEET | TOTAL OBSERVATIONS | WINTER | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 959. | 99. | 45. | 9. |
| 5000. | 1166. | 99. | 42. | 5. |
| 5000. | 1167. | 99. | 38. | 4. |
| 7000. | 1165. | 99. | 38. | 10. |
| 9000. | 1162. | 99. | 37. | 5. |
| 9000. | 1157. | 100. | 37. | 2. |
| 10000. | 1145. | 100. | 37. | 1. |
| 11000. | 1137. | 100. | 36. | 1. |
| 12000. | 1128. | 100. | 34. | 2. |
| 13000. | 1121. | 100. | 33. | 1. |
| 14000. | 1114. | 99. | 31. | 1. |
| 15000. | 1100. | 99. | 30. | 1. |
| 16000. | 1095. | 99. | 30. | 2. |
| 18000. | 1091. | 99. | 29. | 1. |
| 20000. | 1047. | 99. | 29. | 1. |
| 22000. | 1017. | 99. | 30. | 1. |
| 24000. | 967. | 99. | 29. | 1. |
| 26000. | 852. | 99. | 28. | 1. |
| 27000. | 799. | 96. | 26. | 1. |
| 30000. | 456. | 79. | 21. | 1. |
| 32000. | 215. | 71. | 19. | 1. |
| 34000. | 92. | 47. | 12. | 1. |
| 36000. | 22. | 25. | 11. | 1. |
| 38000. | 5. | 14. | 6. | 1. |
| 40000. | 1. | 2. | 2. | 2. |
| 42000. | 0. | 0. | 0. | 0. |
| 44000. | 0. | 0. | 0. | 0. |
| 46000. | 0. | 0. | 0. | 0. |
| 48000. | 0. | 0. | 0. | 0. |
| 50000. | 0. | 0. | 0. | 0. |

TABLE XX (CONT)
 MEAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
 AT SELECTED LEVELS BY SEASONS
 STATION SITE
 PERIOD OF RECORD 1901-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | SPRING | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 1141. | 99. | 29. | 4. |
| 5000. | 1400. | 99. | 29. | 1. |
| 5000. | 1365. | 99. | 28. | 1. |
| 7000. | 1305. | 100. | 30. | 1. |
| 8000. | 1373. | 100. | 31. | 1. |
| 9000. | 1373. | 100. | 32. | 1. |
| 10000. | 1376. | 99. | 33. | 1. |
| 11000. | 1367. | 99. | 33. | 1. |
| 12000. | 1356. | 99. | 33. | 1. |
| 13000. | 1350. | 99. | 33. | 1. |
| 14000. | 1353. | 99. | 33. | 1. |
| 15000. | 1323. | 99. | 32. | 1. |
| 16000. | 1313. | 99. | 32. | 1. |
| 18000. | 1281. | 100. | 30. | 1. |
| 20000. | 1231. | 99. | 30. | 1. |
| 22000. | 1176. | 99. | 28. | 1. |
| 24000. | 1127. | 95. | 28. | 1. |
| 26000. | 1024. | 80. | 27. | 1. |
| 28000. | 880. | 70. | 25. | 1. |
| 30000. | 659. | 72. | 21. | 1. |
| 32000. | 357. | 64. | 17. | 1. |
| 34000. | 173. | 49. | 11. | 1. |
| 36000. | 54. | 31. | 8. | 1. |
| 38000. | 15. | 25. | 8. | 1. |
| 40000. | 5. | 36. | 21. | 8. |
| 42000. | 4. | 25. | 20. | 14. |
| 44000. | 4. | 25. | 18. | 15. |
| 46000. | 3. | 25. | 16. | 7. |
| 48000. | 2. | 25. | 20. | 15. |
| 50000. | 2. | 25. | 20. | 15. |

TABLE XX (CONT.)
MEAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
AT SELECTED LEVELS BY SEASONS
STATION SITE
PERIOD OF RECORD 1921-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | SUMMER | | |
|--------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4900. | 904. | 95. | 40. | 3. |
| 5000. | 921. | 95. | 39. | 3. |
| 6000. | 938. | 93. | 36. | 1. |
| 7000. | 958. | 94. | 37. | 1. |
| 8000. | 981. | 96. | 38. | 3. |
| 9000. | 993. | 94. | 40. | 5. |
| 10000. | 993. | 95. | 41. | 7. |
| 11000. | 995. | 97. | 42. | 3. |
| 12000. | 995. | 99. | 43. | 1. |
| 13000. | 995. | 98. | 44. | 3. |
| 14000. | 994. | 98. | 44. | 4. |
| 15000. | 987. | 98. | 45. | 1. |
| 16000. | 985. | 99. | 44. | 1. |
| 19000. | 963. | 99. | 42. | 1. |
| 20000. | 925. | 100. | 38. | 2. |
| 22000. | 846. | 99. | 32. | 1. |
| 24000. | 848. | 96. | 29. | 1. |
| 26000. | 814. | 86. | 27. | 1. |
| 28000. | 796. | 90. | 25. | 1. |
| 30000. | 767. | 76. | 24. | 1. |
| 32000. | 634. | 79. | 23. | 1. |
| 34000. | 496. | 71. | 21. | 1. |
| 35000. | 262. | 61. | 14. | 1. |
| 36000. | 170. | 47. | 12. | 1. |
| 40000. | 102. | 35. | 12. | 1. |
| 42000. | 55. | 29. | 17. | 1. |
| 44000. | 40. | 28. | 20. | 1. |
| 45000. | 37. | 30. | 21. | 14. |
| 49000. | 36. | 29. | 21. | 15. |
| 50000. | 36. | 30. | 21. | 15. |

TABLE XX (CONT)
 MEAN AND EXTREME UPPER AIR RELATIVE HUMIDITIES (PER CENT)
 AT SELECTED LEVELS BY SEASONS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOGRAPHIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | FALL | | |
|---------------------------------|-----------------------|---------|------|---------|
| | | MAXIMUM | MEAN | MINIMUM |
| 4940. | 638. | 96. | 41. | 9. |
| 5000. | 1040. | 94. | 40. | 10. |
| 5000. | 1046. | 92. | 37. | 7. |
| 7000. | 1090. | 99. | 38. | 3. |
| 8000. | 1042. | 100. | 38. | 10. |
| 9000. | 1093. | 100. | 38. | 6. |
| 10000. | 1044. | 99. | 39. | 8. |
| 11000. | 1077. | 99. | 38. | 1. |
| 12000. | 1045. | 99. | 37. | 3. |
| 13000. | 1049. | 99. | 36. | 1. |
| 14000. | 1035. | 99. | 34. | 1. |
| 15000. | 1010. | 99. | 32. | 1. |
| 16000. | 987. | 100. | 31. | 5. |
| 18000. | 962. | 99. | 29. | 1. |
| 20000. | 929. | 99. | 26. | 2. |
| 22000. | 898. | 98. | 25. | 2. |
| 24000. | 867. | 100. | 25. | 2. |
| 25000. | 824. | 97. | 25. | 1. |
| 28000. | 791. | 84. | 25. | 1. |
| 30000. | 677. | 80. | 23. | 1. |
| 32000. | 396. | 65. | 22. | 1. |
| 34000. | 225. | 65. | 16. | 1. |
| 36000. | 49. | 30. | 9. | 1. |
| 38000. | 33. | 13. | 6. | 1. |
| 40000. | 10. | 13. | 4. | 1. |
| 42000. | 2. | 14. | 8. | 1. |
| 46000. | 1. | 14. | 14. | 14. |
| 46000. | 1. | 14. | 14. | 14. |
| 48000. | 1. | 15. | 15. | 15. |
| 50000. | 1. | 15. | 15. | 15. |

ATMOSPHERIC STRUCTURE REPORT

STALLION SITE

SECTION I

UPPER AIR INDEX OF REFRACTION DATA

By Months

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By Months

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TABLE XXI
MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
AT SELECTED LEVELS BY MONTHS
STATION SITE
PERIOD OF RECORD 1901-1973

JANUARY

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | GRADIENT | MINIMUM |
|--------------------------------|-----------------------|----------|----------|----------|----------|
| 4940. | 350. | 1.000275 | 1.000254 | .000000 | 1.000237 |
| 5000. | 417. | 1.000280 | 1.000253 | -.000001 | 1.000233 |
| 6000. | 418. | 1.000265 | 1.000243 | -.000011 | 1.000232 |
| 7000. | 417. | 1.000259 | 1.000234 | -.000009 | 1.000225 |
| 8000. | 417. | 1.000246 | 1.000225 | -.000009 | 1.000217 |
| 9000. | 418. | 1.000238 | 1.000216 | -.000008 | 1.000204 |
| 10000. | 417. | 1.000228 | 1.000209 | -.000008 | 1.000197 |
| 11000. | 419. | 1.000218 | 1.000201 | -.000008 | 1.000190 |
| 12000. | 419. | 1.000210 | 1.000194 | -.000007 | 1.000184 |
| 13000. | 418. | 1.000201 | 1.000187 | -.000007 | 1.000178 |
| 14000. | 418. | 1.000194 | 1.000180 | -.000007 | 1.000172 |
| 15000. | 416. | 1.000188 | 1.000174 | -.000006 | 1.000167 |
| 16000. | 415. | 1.000182 | 1.000168 | -.000006 | 1.000162 |
| 18000. | 410. | 1.000167 | 1.000156 | -.000012 | 1.000152 |
| 20000. | 393. | 1.000154 | 1.000146 | -.000010 | 1.000143 |
| 25000. | 359. | 1.000127 | 1.000123 | -.000023 | 1.000121 |
| 30000. | 325. | 1.000106 | 1.000103 | -.000020 | 1.000097 |
| 35000. | 260. | 1.000089 | 1.000086 | -.000018 | 1.000078 |
| 40000. | 235. | 1.000074 | 1.000069 | -.000017 | 1.000063 |
| 45000. | 207. | 1.000061 | 1.000054 | -.000015 | 1.000050 |
| 50000. | 178. | 1.000047 | 1.000043 | -.000011 | 1.000040 |
| 55000. | 153. | 1.000037 | 1.000034 | -.000009 | 1.000032 |
| 60000. | 140. | 1.000029 | 1.000026 | -.000007 | 1.000025 |
| 65000. | 150. | 1.000022 | 1.000020 | -.000006 | 1.000020 |
| 70000. | 122. | 1.000017 | 1.000016 | -.000005 | 1.000015 |
| 75000. | 115. | 1.000013 | 1.000012 | -.000003 | 1.000012 |
| 80000. | 102. | 1.000010 | 1.000009 | -.000003 | 1.000009 |
| 85000. | 98. | 1.000008 | 1.000007 | -.000002 | 1.000007 |
| 90000. | 86. | 1.000006 | 1.000006 | -.000002 | 1.000005 |
| 95000. | 82. | 1.000005 | 1.000005 | -.000001 | 1.000004 |
| 100000. | 83. | 1.000004 | 1.000004 | -.000001 | 1.000003 |

TABLE XXI (CONT)
 MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

FEBRUARY

| GEOMETRIC ALTITUDE GSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | GRADIENT | MINIMUM |
|--------------------------------|-----------------------|----------|----------|----------|----------|
| 4940. | 366. | 1.000295 | 1.000253 | .000000 | 1.000233 |
| 5000. | 473. | 1.000284 | 1.000251 | -.000002 | 1.000228 |
| 6000. | 473. | 1.000270 | 1.000241 | -.000010 | 1.000225 |
| 7000. | 475. | 1.000257 | 1.000234 | -.000008 | 1.000221 |
| 8000. | 470. | 1.000246 | 1.000225 | -.000008 | 1.000216 |
| 9000. | 470. | 1.000236 | 1.000217 | -.000008 | 1.000206 |
| 10000. | 470. | 1.000228 | 1.000210 | -.000008 | 1.000198 |
| 11000. | 469. | 1.000218 | 1.000202 | -.000008 | 1.000191 |
| 12000. | 468. | 1.000211 | 1.000194 | -.000007 | 1.000186 |
| 13000. | 468. | 1.000203 | 1.000187 | -.000007 | 1.000180 |
| 14000. | 466. | 1.000196 | 1.000180 | -.000007 | 1.000174 |
| 15000. | 464. | 1.000190 | 1.000174 | -.000006 | 1.000169 |
| 16000. | 466. | 1.000182 | 1.000168 | -.000006 | 1.000164 |
| 18000. | 461. | 1.000168 | 1.000157 | -.000012 | 1.000154 |
| 20000. | 450. | 1.000154 | 1.000147 | -.000010 | 1.000143 |
| 25000. | 404. | 1.000127 | 1.000123 | -.000023 | 1.000119 |
| 30000. | 358. | 1.000106 | 1.000103 | -.000020 | 1.000099 |
| 35000. | 280. | 1.000089 | 1.000085 | -.000018 | 1.000079 |
| 40000. | 250. | 1.000074 | 1.000068 | -.000017 | 1.000062 |
| 45000. | 221. | 1.000059 | 1.000053 | -.000014 | 1.000050 |
| 50000. | 192. | 1.000047 | 1.000043 | -.000010 | 1.000039 |
| 55000. | 158. | 1.000037 | 1.000034 | -.000009 | 1.000031 |
| 60000. | 143. | 1.000029 | 1.000026 | -.000007 | 1.000025 |
| 65000. | 124. | 1.000022 | 1.000020 | -.000006 | 1.000019 |
| 70000. | 103. | 1.000017 | 1.000016 | -.000005 | 1.000015 |
| 75000. | 96. | 1.000013 | 1.000012 | -.000003 | 1.000012 |
| 80000. | 88. | 1.000010 | 1.000009 | -.000003 | 1.000009 |
| 85000. | 87. | 1.000008 | 1.000007 | -.000002 | 1.000007 |
| 90000. | 85. | 1.000006 | 1.000006 | -.000002 | 1.000005 |
| 95000. | 79. | 1.000005 | 1.000005 | -.000001 | 1.000004 |
| 100000. | 62. | 1.000004 | 1.000004 | -.000001 | 1.000003 |

TABLE XXI (CONT)
 FLAM AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

MARCH

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | GRADIENT | MINIMUM |
|--------------------------------|-----------------------|----------|----------|----------|----------|
| 4940. | 348. | 1.000282 | 1.000249 | .000000 | 1.000229 |
| 5000. | 441. | 1.000241 | 1.000248 | -.000001 | 1.000229 |
| 6000. | 443. | 1.000265 | 1.000239 | -.000009 | 1.000221 |
| 7000. | 443. | 1.000257 | 1.000231 | -.000008 | 1.000215 |
| 8000. | 442. | 1.000246 | 1.000223 | -.000008 | 1.000210 |
| 9000. | 441. | 1.000236 | 1.000216 | -.000007 | 1.000203 |
| 10000. | 480. | 1.000227 | 1.000209 | -.000007 | 1.000195 |
| 11000. | 476. | 1.000217 | 1.000201 | -.000008 | 1.000190 |
| 12000. | 474. | 1.000208 | 1.000194 | -.000007 | 1.000185 |
| 13000. | 474. | 1.000200 | 1.000187 | -.000007 | 1.000181 |
| 14000. | 472. | 1.000191 | 1.000180 | -.000007 | 1.000175 |
| 15000. | 472. | 1.000185 | 1.000174 | -.000006 | 1.000169 |
| 16000. | 471. | 1.000178 | 1.000168 | -.000006 | 1.000163 |
| 18000. | 471. | 1.000167 | 1.000157 | -.000012 | 1.000153 |
| 20000. | 462. | 1.000154 | 1.000146 | -.000010 | 1.000143 |
| 25000. | 410. | 1.000127 | 1.000123 | -.000024 | 1.000119 |
| 30000. | 348. | 1.000106 | 1.000103 | -.000020 | 1.000097 |
| 35000. | 257. | 1.000089 | 1.000065 | -.000018 | 1.000078 |
| 40000. | 208. | 1.000074 | 1.000068 | -.000017 | 1.000063 |
| 45000. | 183. | 1.000059 | 1.000053 | -.000015 | 1.000050 |
| 50000. | 159. | 1.000047 | 1.000043 | -.000011 | 1.000040 |
| 55000. | 134. | 1.000037 | 1.000034 | -.000009 | 1.000032 |
| 60000. | 116. | 1.000028 | 1.000026 | -.000007 | 1.000025 |
| 65000. | 100. | 1.000022 | 1.000020 | -.000006 | 1.000020 |
| 70000. | 96. | 1.000017 | 1.000016 | -.000005 | 1.000015 |
| 75000. | 47. | 1.000013 | 1.000012 | -.000003 | 1.000012 |
| 80000. | 80. | 1.000010 | 1.000009 | -.000003 | 1.000009 |
| 85000. | 77. | 1.000008 | 1.000008 | -.000002 | 1.000007 |
| 90000. | 56. | 1.000006 | 1.000006 | -.000002 | 1.000005 |
| 95000. | 51. | 1.000005 | 1.000005 | -.000001 | 1.000004 |
| 100000. | 47. | 1.000004 | 1.000004 | -.000001 | 1.000003 |

TABLE XXI (CONT)
 MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

APRIL

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | GRADIENT | MINIMUM |
|--------------------------------|-----------------------|----------|----------|----------|----------|
| 4940. | 416. | 1.000284 | 1.000247 | .000000 | 1.000221 |
| 5000. | 534. | 1.000283 | 1.000245 | -.000001 | 1.000219 |
| 6000. | 534. | 1.000270 | 1.000237 | -.000002 | 1.000216 |
| 7000. | 533. | 1.000256 | 1.000229 | -.000008 | 1.000210 |
| 8000. | 531. | 1.000248 | 1.000222 | -.000007 | 1.000205 |
| 9000. | 533. | 1.000237 | 1.000215 | -.000007 | 1.000200 |
| 10000. | 533. | 1.000227 | 1.000207 | -.000007 | 1.000194 |
| 11000. | 533. | 1.000218 | 1.000200 | -.000007 | 1.000188 |
| 12000. | 532. | 1.000209 | 1.000193 | -.000007 | 1.000184 |
| 13000. | 532. | 1.000202 | 1.000186 | -.000007 | 1.000178 |
| 14000. | 532. | 1.000194 | 1.000180 | -.000007 | 1.000172 |
| 15000. | 532. | 1.000187 | 1.000174 | -.000006 | 1.000166 |
| 16000. | 531. | 1.000180 | 1.000168 | -.000006 | 1.000161 |
| 17000. | 525. | 1.000165 | 1.000156 | -.000012 | 1.000151 |
| 20000. | 501. | 1.000153 | 1.000146 | -.000010 | 1.000142 |
| 25000. | 455. | 1.000127 | 1.000123 | -.000023 | 1.000121 |
| 30000. | 414. | 1.000106 | 1.000103 | -.000019 | 1.000098 |
| 35000. | 285. | 1.000089 | 1.000086 | -.000017 | 1.000080 |
| 40000. | 250. | 1.000074 | 1.000070 | -.000016 | 1.000064 |
| 45000. | 202. | 1.000060 | 1.000055 | -.000015 | 1.000052 |
| 50000. | 183. | 1.000046 | 1.000043 | -.000011 | 1.000041 |
| 55000. | 154. | 1.000037 | 1.000034 | -.000010 | 1.000032 |
| 60000. | 138. | 1.000029 | 1.000027 | -.000007 | 1.000026 |
| 65000. | 129. | 1.000022 | 1.000021 | -.000006 | 1.000020 |
| 70000. | 121. | 1.000017 | 1.000016 | -.000005 | 1.000015 |
| 75000. | 115. | 1.000013 | 1.000012 | -.000003 | 1.000012 |
| 80000. | 100. | 1.000010 | 1.000010 | -.000003 | 1.000009 |
| 85000. | 101. | 1.000008 | 1.000008 | -.000002 | 1.000007 |
| 90000. | 97. | 1.000006 | 1.000006 | -.000002 | 1.000005 |
| 95000. | 88. | 1.000005 | 1.000005 | -.000001 | 1.000004 |
| 100000. | 67. | 1.000004 | 1.000004 | -.000001 | 1.000003 |

TABLE XXI (CONT)
 MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 STATION, SITE
 PERIOD OF RECORD 1961-1973

MAY

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | GRADIENT | MINIMUM |
|--------------------------------|-----------------------|----------|----------|----------|----------|
| 4940. | 413. | 1.000293 | 1.000250 | .000000 | 1.000225 |
| 5000. | 462. | 1.000290 | 1.000249 | -.000001 | 1.000225 |
| 6000. | 462. | 1.000271 | 1.000239 | -.000010 | 1.000214 |
| 7000. | 462. | 1.000263 | 1.000231 | -.000008 | 1.000207 |
| 8000. | 462. | 1.000254 | 1.000223 | -.000008 | 1.000202 |
| 9000. | 462. | 1.000245 | 1.000216 | -.000007 | 1.000197 |
| 10000. | 462. | 1.000235 | 1.000208 | -.000007 | 1.000193 |
| 11000. | 462. | 1.000227 | 1.000201 | -.000007 | 1.000188 |
| 12000. | 462. | 1.000221 | 1.000194 | -.000007 | 1.000183 |
| 13000. | 455. | 1.000212 | 1.000188 | -.000007 | 1.000178 |
| 14000. | 453. | 1.000203 | 1.000181 | -.000007 | 1.000172 |
| 15000. | 450. | 1.000195 | 1.000175 | -.000006 | 1.000167 |
| 16000. | 449. | 1.000187 | 1.000169 | -.000006 | 1.000162 |
| 18000. | 445. | 1.000172 | 1.000157 | -.000012 | 1.000152 |
| 20000. | 434. | 1.000156 | 1.000147 | -.000010 | 1.000143 |
| 25000. | 410. | 1.000127 | 1.000123 | -.000024 | 1.000120 |
| 30000. | 381. | 1.000106 | 1.000104 | -.000019 | 1.000101 |
| 35000. | 259. | 1.000089 | 1.000087 | -.000017 | 1.000083 |
| 40000. | 218. | 1.000074 | 1.000071 | -.000016 | 1.000067 |
| 45000. | 205. | 1.000061 | 1.000056 | -.000015 | 1.000053 |
| 50000. | 181. | 1.000047 | 1.000045 | -.000011 | 1.000042 |
| 55000. | 146. | 1.000037 | 1.000035 | -.000010 | 1.000033 |
| 60000. | 136. | 1.000029 | 1.000027 | -.000008 | 1.000026 |
| 65000. | 122. | 1.000022 | 1.000021 | -.000006 | 1.000020 |
| 70000. | 112. | 1.000017 | 1.000016 | -.000005 | 1.000016 |
| 75000. | 105. | 1.000013 | 1.000013 | -.000003 | 1.000012 |
| 80000. | 102. | 1.000010 | 1.000010 | -.000003 | 1.000009 |
| 85000. | 98. | 1.000008 | 1.000008 | -.000002 | 1.000007 |
| 90000. | 95. | 1.000006 | 1.000006 | -.000002 | 1.000006 |
| 95000. | 86. | 1.000005 | 1.000005 | -.000001 | 1.000004 |
| 100000. | 68. | 1.000004 | 1.000004 | -.000001 | 1.000003 |

TABLE XXI (CONT)
 MAX AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

JUNE

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | GRADIENT | MINIMUM |
|--------------------------------|-----------------------|----------|----------|----------|----------|
| 4940. | 320. | 1.000301 | 1.000256 | .000000 | 1.000220 |
| 5000. | 351. | 1.000297 | 1.000254 | -.000002 | 1.000221 |
| 6000. | 352. | 1.000285 | 1.000243 | -.000011 | 1.000211 |
| 7000. | 351. | 1.000274 | 1.000235 | -.000008 | 1.000205 |
| 8000. | 352. | 1.000266 | 1.000227 | -.000008 | 1.000200 |
| 9000. | 351. | 1.000257 | 1.000219 | -.000008 | 1.000195 |
| 10000. | 352. | 1.000241 | 1.000211 | -.000008 | 1.000190 |
| 11000. | 349. | 1.000234 | 1.000204 | -.000007 | 1.000185 |
| 12000. | 351. | 1.000224 | 1.000197 | -.000007 | 1.000180 |
| 13000. | 349. | 1.000213 | 1.000190 | -.000007 | 1.000175 |
| 14000. | 348. | 1.000205 | 1.000183 | -.000007 | 1.000171 |
| 15000. | 346. | 1.000199 | 1.000177 | -.000006 | 1.000165 |
| 16000. | 347. | 1.000192 | 1.000170 | -.000006 | 1.000160 |
| 18000. | 344. | 1.000177 | 1.000158 | -.000012 | 1.000150 |
| 20000. | 338. | 1.000162 | 1.000147 | -.000011 | 1.000141 |
| 25000. | 317. | 1.000127 | 1.000123 | -.000024 | 1.000120 |
| 30000. | 296. | 1.000106 | 1.000104 | -.000019 | 1.000102 |
| 35000. | 221. | 1.000089 | 1.000087 | -.000017 | 1.000085 |
| 40000. | 165. | 1.000074 | 1.000072 | -.000015 | 1.000069 |
| 45000. | 150. | 1.000062 | 1.000058 | -.000014 | 1.000055 |
| 50000. | 143. | 1.000050 | 1.000046 | -.000011 | 1.000044 |
| 55000. | 120. | 1.000039 | 1.000036 | -.000010 | 1.000035 |
| 60000. | 121. | 1.000030 | 1.000028 | -.000008 | 1.000027 |
| 65000. | 102. | 1.000023 | 1.000021 | -.000006 | 1.000021 |
| 70000. | 97. | 1.000018 | 1.000016 | -.000005 | 1.000016 |
| 75000. | 92. | 1.000014 | 1.000013 | -.000004 | 1.000012 |
| 80000. | 91. | 1.000011 | 1.000010 | -.000003 | 1.000009 |
| 85000. | 86. | 1.000008 | 1.000008 | -.000002 | 1.000007 |
| 90000. | 81. | 1.000007 | 1.000006 | -.000002 | 1.000006 |
| 95000. | 70. | 1.000005 | 1.000004 | -.000001 | 1.000004 |
| 100000. | 60. | 1.000004 | 1.000004 | -.000001 | 1.000003 |

TABLE XXI (CONT)
 MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

JULY

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | GRADIENT | MINIMUM |
|--------------------------------|-----------------------|----------|----------|----------|----------|
| 4000. | 310. | 1.000333 | 1.000279 | .000000 | 1.000239 |
| 5000. | 349. | 1.000319 | 1.000276 | -.000003 | 1.000232 |
| 6000. | 348. | 1.000291 | 1.000260 | -.000016 | 1.000222 |
| 7000. | 348. | 1.000285 | 1.000250 | -.000010 | 1.000207 |
| 8000. | 350. | 1.000280 | 1.000241 | -.000010 | 1.000205 |
| 9000. | 350. | 1.000258 | 1.000232 | -.000009 | 1.000199 |
| 10000. | 340. | 1.000248 | 1.000223 | -.000009 | 1.000199 |
| 11000. | 354. | 1.000238 | 1.000214 | -.000009 | 1.000192 |
| 12000. | 354. | 1.000228 | 1.000206 | -.000008 | 1.000187 |
| 13000. | 354. | 1.000218 | 1.000198 | -.000008 | 1.000180 |
| 14000. | 354. | 1.000208 | 1.000191 | -.000007 | 1.000175 |
| 15000. | 353. | 1.000199 | 1.000183 | -.000007 | 1.000169 |
| 16000. | 352. | 1.000191 | 1.000176 | -.000007 | 1.000164 |
| 18000. | 350. | 1.000175 | 1.000162 | -.000014 | 1.000151 |
| 20000. | 344. | 1.000161 | 1.000150 | -.000013 | 1.000142 |
| 25000. | 317. | 1.000130 | 1.000123 | -.000027 | 1.000120 |
| 30000. | 297. | 1.000106 | 1.000103 | -.000020 | 1.000102 |
| 35000. | 250. | 1.000098 | 1.000087 | -.000017 | 1.000086 |
| 40000. | 178. | 1.000074 | 1.000073 | -.000014 | 1.000072 |
| 45000. | 155. | 1.000061 | 1.000060 | -.000013 | 1.000059 |
| 50000. | 147. | 1.000050 | 1.000048 | -.000011 | 1.000047 |
| 55000. | 134. | 1.000039 | 1.000037 | -.000011 | 1.000037 |
| 60000. | 125. | 1.000030 | 1.000028 | -.000009 | 1.000027 |
| 65000. | 114. | 1.000022 | 1.000022 | -.000007 | 1.000022 |
| 70000. | 110. | 1.000017 | 1.000017 | -.000005 | 1.000017 |
| 75000. | 107. | 1.000014 | 1.000013 | -.000004 | 1.000013 |
| 80000. | 106. | 1.000011 | 1.000010 | -.000003 | 1.000010 |
| 85000. | 102. | 1.000008 | 1.000008 | -.000002 | 1.000008 |
| 90000. | 97. | 1.000007 | 1.000006 | -.000002 | 1.000006 |
| 95000. | 92. | 1.000005 | 1.000005 | -.000001 | 1.000005 |
| 100000. | 85. | 1.000004 | 1.000004 | -.000001 | 1.000004 |

TABLE XXI (CONT)
LOW AND EXTREME UPPER AIR INDEXES OF REFRACTION
AT SELECTED LEVELS BY MONTHS
STATION SITE
PERIOD OF RECORD 1951-1973

AUGUST

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | GRADIENT | MINIMUM |
|--------------------------------|-----------------------|----------|----------|----------|----------|
| 4940. | 365. | 1.000313 | 1.000277 | .000000 | 1.000236 |
| 5000. | 344. | 1.000311 | 1.000276 | -.000001 | 1.000234 |
| 5000. | 344. | 1.000297 | 1.000259 | -.000017 | 1.000209 |
| 7000. | 345. | 1.000279 | 1.000249 | -.000010 | 1.000204 |
| 8000. | 345. | 1.000268 | 1.000240 | -.000009 | 1.000201 |
| 9000. | 345. | 1.000260 | 1.000232 | -.000008 | 1.000201 |
| 10000. | 344. | 1.000250 | 1.000223 | -.000008 | 1.000199 |
| 11000. | 344. | 1.000239 | 1.000215 | -.000009 | 1.000196 |
| 12000. | 344. | 1.000226 | 1.000207 | -.000008 | 1.000187 |
| 13000. | 345. | 1.000217 | 1.000199 | -.000008 | 1.000180 |
| 14000. | 345. | 1.000207 | 1.000191 | -.000008 | 1.000173 |
| 15000. | 344. | 1.000201 | 1.000183 | -.000008 | 1.000166 |
| 16000. | 332. | 1.000192 | 1.000175 | -.000007 | 1.000161 |
| 18000. | 378. | 1.000175 | 1.000161 | -.000014 | 1.000152 |
| 20000. | 375. | 1.000160 | 1.000149 | -.000013 | 1.000142 |
| 25000. | 354. | 1.000130 | 1.000123 | -.000026 | 1.000120 |
| 30000. | 344. | 1.000106 | 1.000103 | -.000019 | 1.000101 |
| 35000. | 234. | 1.000089 | 1.000087 | -.000017 | 1.000086 |
| 40000. | 215. | 1.000074 | 1.000072 | -.000014 | 1.000071 |
| 45000. | 141. | 1.000061 | 1.000059 | -.000013 | 1.000058 |
| 50000. | 177. | 1.000050 | 1.000048 | -.000011 | 1.000046 |
| 55000. | 162. | 1.000040 | 1.000037 | -.000011 | 1.000036 |
| 60000. | 145. | 1.000030 | 1.000028 | -.000009 | 1.000027 |
| 65000. | 147. | 1.000023 | 1.000022 | -.000007 | 1.000021 |
| 70000. | 137. | 1.000017 | 1.000016 | -.000005 | 1.000016 |
| 75000. | 130. | 1.000014 | 1.000013 | -.000004 | 1.000012 |
| 80000. | 124. | 1.000011 | 1.000010 | -.000003 | 1.000010 |
| 85000. | 120. | 1.000008 | 1.000008 | -.000002 | 1.000007 |
| 90000. | 104. | 1.000007 | 1.000006 | -.000002 | 1.000006 |
| 95000. | 94. | 1.000005 | 1.000005 | -.000001 | 1.000004 |
| 100000. | 52. | 1.000004 | 1.000004 | -.000001 | 1.000003 |

TABLE XXI (CONT)
 MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

SEPTEMBER

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | GRADIENT | MINIMUM |
|--------------------------------|-----------------------|----------|----------|----------|----------|
| 4940. | 320. | 1.000306 | 1.000273 | .000000 | 1.000236 |
| 5000. | 362. | 1.000308 | 1.000269 | -.000003 | 1.000235 |
| 6000. | 361. | 1.000290 | 1.000255 | -.000014 | 1.000226 |
| 7000. | 362. | 1.000280 | 1.000246 | -.000009 | 1.000219 |
| 8000. | 362. | 1.000272 | 1.000237 | -.000009 | 1.000214 |
| 9000. | 363. | 1.000262 | 1.000228 | -.000009 | 1.000207 |
| 10000. | 362. | 1.000245 | 1.000220 | -.000009 | 1.000198 |
| 11000. | 363. | 1.000240 | 1.000211 | -.000009 | 1.000190 |
| 12000. | 363. | 1.000234 | 1.000203 | -.000008 | 1.000183 |
| 13000. | 363. | 1.000218 | 1.000194 | -.000008 | 1.000176 |
| 14000. | 363. | 1.000206 | 1.000187 | -.000008 | 1.000170 |
| 15000. | 361. | 1.000199 | 1.000179 | -.000008 | 1.000165 |
| 16000. | 361. | 1.000192 | 1.000171 | -.000007 | 1.000160 |
| 18000. | 361. | 1.000177 | 1.000158 | -.000013 | 1.000149 |
| 20000. | 359. | 1.000160 | 1.000146 | -.000012 | 1.000141 |
| 25000. | 345. | 1.000128 | 1.000122 | -.000024 | 1.000120 |
| 30000. | 323. | 1.000106 | 1.000103 | -.000019 | 1.000100 |
| 35000. | 250. | 1.000088 | 1.000086 | -.000017 | 1.000083 |
| 40000. | 202. | 1.000074 | 1.000071 | -.000015 | 1.000067 |
| 45000. | 188. | 1.000061 | 1.000058 | -.000013 | 1.000054 |
| 50000. | 181. | 1.000050 | 1.000047 | -.000011 | 1.000044 |
| 55000. | 159. | 1.000039 | 1.000036 | -.000011 | 1.000034 |
| 60000. | 147. | 1.000029 | 1.000028 | -.000009 | 1.000027 |
| 65000. | 138. | 1.000022 | 1.000021 | -.000006 | 1.000020 |
| 70000. | 128. | 1.000017 | 1.000016 | -.000005 | 1.000016 |
| 75000. | 124. | 1.000014 | 1.000013 | -.000004 | 1.000012 |
| 80000. | 121. | 1.000010 | 1.000010 | -.000003 | 1.000010 |
| 85000. | 115. | 1.000008 | 1.000008 | -.000002 | 1.000007 |
| 90000. | 105. | 1.000006 | 1.000006 | -.000002 | 1.000006 |
| 95000. | 91. | 1.000005 | 1.000005 | -.000001 | 1.000004 |
| 100000. | 80. | 1.000004 | 1.000004 | -.000001 | 1.000003 |

TABLE XXI (CONT)
 MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY MONTHS
 STATION SITE
 PERIOD OF RECORD 1961-1973

OCTOBER

| GEOMETRIC ALTITUDE ASL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | GRADIENT | MINIMUM |
|--------------------------------|-----------------------|----------|----------|----------|----------|
| 4940. | 367. | 1.000302 | 1.000258 | .000000 | 1.000234 |
| 5000. | 417. | 1.000299 | 1.000257 | -.000001 | 1.000234 |
| 6000. | 417. | 1.000283 | 1.000245 | -.000011 | 1.000217 |
| 7000. | 416. | 1.000281 | 1.000237 | -.000009 | 1.000214 |
| 8000. | 417. | 1.000268 | 1.000228 | -.000009 | 1.000208 |
| 9000. | 418. | 1.000253 | 1.000220 | -.000008 | 1.000203 |
| 10000. | 418. | 1.000243 | 1.000212 | -.000003 | 1.000197 |
| 11000. | 418. | 1.000234 | 1.000203 | -.000008 | 1.000189 |
| 12000. | 418. | 1.000225 | 1.000196 | -.000008 | 1.000181 |
| 13000. | 418. | 1.000216 | 1.000188 | -.000008 | 1.000175 |
| 14000. | 417. | 1.000207 | 1.000180 | -.000007 | 1.000170 |
| 15000. | 415. | 1.000197 | 1.000174 | -.000007 | 1.000165 |
| 16000. | 414. | 1.000187 | 1.000167 | -.000007 | 1.000160 |
| 18000. | 413. | 1.000173 | 1.000155 | -.000012 | 1.000150 |
| 20000. | 410. | 1.000159 | 1.000145 | -.000010 | 1.000141 |
| 25000. | 388. | 1.000128 | 1.000123 | -.000023 | 1.000119 |
| 30000. | 362. | 1.000106 | 1.000104 | -.000019 | 1.000099 |
| 35000. | 290. | 1.000089 | 1.000087 | -.000017 | 1.000084 |
| 40000. | 242. | 1.000074 | 1.000071 | -.000015 | 1.000067 |
| 45000. | 208. | 1.000061 | 1.000057 | -.000014 | 1.000056 |
| 50000. | 204. | 1.000049 | 1.000046 | -.000011 | 1.000044 |
| 55000. | 182. | 1.000038 | 1.000036 | -.000010 | 1.000035 |
| 60000. | 176. | 1.000029 | 1.000027 | -.000008 | 1.000027 |
| 65000. | 167. | 1.000022 | 1.000021 | -.000006 | 1.000021 |
| 70000. | 161. | 1.000017 | 1.000016 | -.000005 | 1.000016 |
| 75000. | 153. | 1.000013 | 1.000012 | -.000003 | 1.000012 |
| 80000. | 146. | 1.000010 | 1.000010 | -.000003 | 1.000010 |
| 85000. | 136. | 1.000008 | 1.000008 | -.000002 | 1.000008 |
| 90000. | 125. | 1.000006 | 1.000006 | -.000002 | 1.000006 |
| 95000. | 110. | 1.000005 | 1.000005 | -.000001 | 1.000005 |
| 100000. | 97. | 1.000004 | 1.000004 | -.000001 | 1.000004 |

TABLE XXI (CONT)
MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
AT SELECTED LEVELS BY MONTHS
STALLION SITE
PERIOD OF RECORD 1961-1973

| GEOGRAPHIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | NOVEMBER | | | GRADIENT | MINIMUM |
|---------------------------------|-----------------------|----------|----------|--|----------|----------|
| | | MAXIMUM | MEAN | | | |
| 4940. | 348. | 1.000282 | 1.000255 | | .000000 | 1.000233 |
| 5000. | 407. | 1.000279 | 1.000254 | | -.000001 | 1.000233 |
| 6000. | 407. | 1.000266 | 1.000244 | | -.000010 | 1.000227 |
| 7000. | 407. | 1.000263 | 1.000235 | | -.000008 | 1.000221 |
| 8000. | 408. | 1.000257 | 1.000227 | | -.000008 | 1.000214 |
| 9000. | 407. | 1.000243 | 1.000218 | | -.000009 | 1.000205 |
| 10000. | 407. | 1.000232 | 1.000210 | | -.000008 | 1.000197 |
| 11000. | 497. | 1.000223 | 1.000202 | | -.000008 | 1.000190 |
| 12000. | 404. | 1.000215 | 1.000194 | | -.000008 | 1.000184 |
| 13000. | 403. | 1.000205 | 1.000187 | | -.000007 | 1.000178 |
| 14000. | 403. | 1.000198 | 1.000180 | | -.000007 | 1.000172 |
| 15000. | 402. | 1.000193 | 1.000173 | | -.000006 | 1.000167 |
| 16000. | 402. | 1.000185 | 1.000167 | | -.000006 | 1.000162 |
| 18000. | 401. | 1.000170 | 1.000156 | | -.000011 | 1.000152 |
| 20000. | 390. | 1.000156 | 1.000146 | | -.000010 | 1.000142 |
| 25000. | 344. | 1.000128 | 1.000123 | | -.000023 | 1.000120 |
| 30000. | 310. | 1.000107 | 1.000103 | | -.000020 | 1.000098 |
| 35000. | 243. | 1.000089 | 1.000086 | | -.000017 | 1.000079 |
| 40000. | 184. | 1.000075 | 1.000070 | | -.000016 | 1.000066 |
| 45000. | 166. | 1.000061 | 1.000056 | | -.000014 | 1.000053 |
| 50000. | 152. | 1.000049 | 1.000045 | | -.000011 | 1.000042 |
| 55000. | 129. | 1.000038 | 1.000035 | | -.000010 | 1.000033 |
| 60000. | 118. | 1.000029 | 1.000027 | | -.000008 | 1.000026 |
| 65000. | 113. | 1.000022 | 1.000021 | | -.000006 | 1.000020 |
| 70000. | 109. | 1.000017 | 1.000016 | | -.000005 | 1.000016 |
| 75000. | 102. | 1.000013 | 1.000013 | | -.000003 | 1.000012 |
| 80000. | 98. | 1.000010 | 1.000010 | | -.000003 | 1.000009 |
| 85000. | 93. | 1.000008 | 1.000008 | | -.000002 | 1.000007 |
| 90000. | 85. | 1.000006 | 1.000006 | | -.000002 | 1.000006 |
| 95000. | 69. | 1.000005 | 1.000005 | | -.000001 | 1.000005 |
| 100000. | 52. | 1.000004 | 1.000004 | | -.000001 | 1.000004 |

TABLE XXI (CONT)
MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
AT SELECTED LEVELS BY MONTHS
STALLION SITE
PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | DECEMBER | | | GRADIENT | MINIMUM |
|--------------------------------|-----------------------|----------|----------|--|----------|----------|
| | | MAXIMUM | MEAN | | | |
| 4940. | 247. | 1.000281 | 1.000256 | | .000000 | 1.000241 |
| 5000. | 320. | 1.000279 | 1.000254 | | -.000002 | 1.000238 |
| 6000. | 629. | 1.000270 | 1.000244 | | -.000010 | 1.000226 |
| 7000. | 320. | 1.000262 | 1.000235 | | -.000009 | 1.000217 |
| 8000. | 329. | 1.000250 | 1.000226 | | -.000009 | 1.000208 |
| 9000. | 320. | 1.000239 | 1.000217 | | -.000009 | 1.000201 |
| 10000. | 329. | 1.000232 | 1.000209 | | -.000008 | 1.000196 |
| 11000. | 329. | 1.000221 | 1.000201 | | -.000008 | 1.000190 |
| 12000. | 329. | 1.000215 | 1.000194 | | -.000007 | 1.000184 |
| 13000. | 329. | 1.000207 | 1.000187 | | -.000007 | 1.000179 |
| 14000. | 328. | 1.000195 | 1.000180 | | -.000007 | 1.000172 |
| 15000. | 325. | 1.000187 | 1.000173 | | -.000006 | 1.000167 |
| 16000. | 328. | 1.000180 | 1.000168 | | -.000006 | 1.000162 |
| 18000. | 326. | 1.000165 | 1.000156 | | -.000011 | 1.000152 |
| 20000. | 321. | 1.000153 | 1.000146 | | -.000010 | 1.000143 |
| 25000. | 303. | 1.000127 | 1.000123 | | -.000023 | 1.000118 |
| 30000. | 263. | 1.000106 | 1.000103 | | -.000020 | 1.000098 |
| 35000. | 206. | 1.000090 | 1.000086 | | -.000018 | 1.000080 |
| 40000. | 177. | 1.000074 | 1.000069 | | -.000017 | 1.000064 |
| 45000. | 154. | 1.000059 | 1.000055 | | -.000014 | 1.000051 |
| 50000. | 144. | 1.000046 | 1.000044 | | -.000011 | 1.000040 |
| 55000. | 124. | 1.000036 | 1.000034 | | -.000010 | 1.000032 |
| 60000. | 123. | 1.000028 | 1.000027 | | -.000007 | 1.000025 |
| 65000. | 119. | 1.000022 | 1.000021 | | -.000006 | 1.000019 |
| 70000. | 111. | 1.000017 | 1.000016 | | -.000005 | 1.000015 |
| 75000. | 110. | 1.000013 | 1.000012 | | -.000003 | 1.000012 |
| 80000. | 107. | 1.000010 | 1.000009 | | -.000003 | 1.000009 |
| 85000. | 105. | 1.000008 | 1.000007 | | -.000002 | 1.000007 |
| 90000. | 100. | 1.000006 | 1.000006 | | -.000002 | 1.000005 |
| 95000. | 93. | 1.000005 | 1.000005 | | -.000001 | 1.000004 |
| 100000. | 77. | 1.000004 | 1.000004 | | -.000001 | 1.000003 |

TABLE XXII
 MEAN AND EXTREME UPPER AIR INDICES OF REFRACTION
 AT SELECTED LEVELS BY STATIONS
 STATION SITE
 PERIOD OF RECORD 1961-1973

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | GRADIENT | MINIMUM |
|--------------------------------|-----------------------|----------|----------|----------|----------|
| 4940. | 1713. | 1.000285 | 1.000254 | .000000 | 1.000233 |
| 5000. | 1218. | 1.000284 | 1.000253 | -.000002 | 1.000228 |
| 6000. | 1220. | 1.000270 | 1.000243 | -.000010 | 1.000225 |
| 7000. | 1210. | 1.000262 | 1.000234 | -.000008 | 1.000217 |
| 8000. | 1216. | 1.000250 | 1.000225 | -.000009 | 1.000208 |
| 9000. | 1217. | 1.000239 | 1.000217 | -.000006 | 1.000201 |
| 10000. | 1216. | 1.000232 | 1.000209 | -.000008 | 1.000196 |
| 11000. | 1217. | 1.000221 | 1.000201 | -.000008 | 1.000190 |
| 12000. | 1215. | 1.000215 | 1.000194 | -.000007 | 1.000184 |
| 13000. | 1215. | 1.000207 | 1.000187 | -.000007 | 1.000178 |
| 14000. | 1212. | 1.000196 | 1.000180 | -.000007 | 1.000172 |
| 15000. | 1208. | 1.000190 | 1.000174 | -.000006 | 1.000167 |
| 16000. | 1200. | 1.000182 | 1.000168 | -.000006 | 1.000162 |
| 18000. | 1197. | 1.000168 | 1.000156 | -.000012 | 1.000152 |
| 20000. | 1164. | 1.000154 | 1.000146 | -.000010 | 1.000143 |
| 25000. | 1066. | 1.000127 | 1.000123 | -.000023 | 1.000118 |
| 30000. | 946. | 1.000106 | 1.000103 | -.000020 | 1.000097 |
| 35000. | 746. | 1.000090 | 1.000085 | -.000018 | 1.000078 |
| 40000. | 662. | 1.000074 | 1.000068 | -.000017 | 1.000062 |
| 45000. | 582. | 1.000061 | 1.000054 | -.000014 | 1.000050 |
| 50000. | 514. | 1.000047 | 1.000043 | -.000011 | 1.000039 |
| 55000. | 435. | 1.000037 | 1.000034 | -.000009 | 1.000031 |
| 60000. | 406. | 1.000029 | 1.000026 | -.000007 | 1.000025 |
| 65000. | 373. | 1.000022 | 1.000020 | -.000006 | 1.000019 |
| 70000. | 336. | 1.000017 | 1.000016 | -.000005 | 1.000015 |
| 75000. | 321. | 1.000013 | 1.000012 | -.000003 | 1.000012 |
| 80000. | 297. | 1.000010 | 1.000009 | -.000003 | 1.000009 |
| 85000. | 290. | 1.000008 | 1.000007 | -.000002 | 1.000007 |
| 90000. | 269. | 1.000006 | 1.000006 | -.000002 | 1.000005 |
| 95000. | 254. | 1.000005 | 1.000005 | -.000001 | 1.000004 |
| 100000. | 202. | 1.000004 | 1.000004 | -.000001 | 1.000003 |

TABLE XXII (CONT)

PLAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
AT SELECTED LEVELS BY SEASONS
STATION SITE
PERIOD OF RECORD 1961-1973

SPRING

| GEOMETRIC ALTITUDE IN FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | GRADIENT | MINIMUM |
|-------------------------------|-----------------------|----------|----------|----------|----------|
| 6000. | 1217. | 1.000293 | 1.000248 | .000000 | 1.000221 |
| 5000. | 1477. | 1.000290 | 1.000247 | -.000001 | 1.000219 |
| 6000. | 1478. | 1.000271 | 1.000238 | -.000009 | 1.000214 |
| 7000. | 1478. | 1.000263 | 1.000230 | -.000008 | 1.000207 |
| 8000. | 1475. | 1.000254 | 1.000223 | -.000008 | 1.000202 |
| 9000. | 1476. | 1.000245 | 1.000215 | -.000007 | 1.000197 |
| 10000. | 1475. | 1.000235 | 1.000208 | -.000007 | 1.000193 |
| 11000. | 1468. | 1.000227 | 1.000201 | -.000007 | 1.000188 |
| 12000. | 1463. | 1.000221 | 1.000194 | -.000007 | 1.000183 |
| 13000. | 1461. | 1.000212 | 1.000187 | -.000007 | 1.000178 |
| 14000. | 1457. | 1.000203 | 1.000180 | -.000007 | 1.000172 |
| 15000. | 1454. | 1.000195 | 1.000174 | -.000006 | 1.000166 |
| 16000. | 1451. | 1.000187 | 1.000168 | -.000006 | 1.000161 |
| 17000. | 1441. | 1.000172 | 1.000156 | -.000012 | 1.000151 |
| 20000. | 1397. | 1.000158 | 1.000146 | -.000010 | 1.000142 |
| 25000. | 1284. | 1.000127 | 1.000123 | -.000024 | 1.000119 |
| 30000. | 1143. | 1.000106 | 1.000103 | -.000020 | 1.000097 |
| 35000. | 801. | 1.000089 | 1.000086 | -.000017 | 1.000078 |
| 40000. | 656. | 1.000074 | 1.000070 | -.000016 | 1.000063 |
| 45000. | 595. | 1.000061 | 1.000055 | -.000015 | 1.000050 |
| 50000. | 523. | 1.000047 | 1.000044 | -.000011 | 1.000040 |
| 55000. | 434. | 1.000037 | 1.000034 | -.000010 | 1.000032 |
| 60000. | 309. | 1.000029 | 1.000027 | -.000007 | 1.000025 |
| 65000. | 351. | 1.000022 | 1.000021 | -.000006 | 1.000020 |
| 70000. | 329. | 1.000017 | 1.000016 | -.000005 | 1.000015 |
| 75000. | 307. | 1.000013 | 1.000012 | -.000003 | 1.000012 |
| 80000. | 248. | 1.000010 | 1.000010 | -.000003 | 1.000009 |
| 85000. | 277. | 1.000008 | 1.000008 | -.000002 | 1.000007 |
| 90000. | 258. | 1.000006 | 1.000006 | -.000002 | 1.000005 |
| 95000. | 235. | 1.000005 | 1.000005 | -.000001 | 1.000004 |
| 100000. | 143. | 1.000004 | 1.000004 | -.000001 | 1.000003 |

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TABLE XXII (CONT)
 MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY SEASONS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

SUMMER

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | GRADIENT | MINIMUM |
|--------------------------------|-----------------------|----------|----------|----------|----------|
| 4940. | 994. | 1.000333 | 1.000271 | .000000 | 1.000220 |
| 5000. | 1084. | 1.000319 | 1.000269 | -.000002 | 1.000221 |
| 6000. | 1084. | 1.000297 | 1.000254 | -.000015 | 1.000209 |
| 7000. | 1084. | 1.000285 | 1.000245 | -.000009 | 1.000204 |
| 8000. | 1087. | 1.000280 | 1.000236 | -.000009 | 1.000200 |
| 9000. | 1086. | 1.000260 | 1.000228 | -.000008 | 1.000195 |
| 10000. | 1085. | 1.000250 | 1.000219 | -.000008 | 1.000190 |
| 11000. | 1087. | 1.000239 | 1.000211 | -.000008 | 1.000185 |
| 12000. | 1089. | 1.000228 | 1.000203 | -.000008 | 1.000180 |
| 13000. | 1088. | 1.000218 | 1.000196 | -.000008 | 1.000175 |
| 14000. | 1087. | 1.000208 | 1.000188 | -.000007 | 1.000171 |
| 15000. | 1083. | 1.000201 | 1.000181 | -.000007 | 1.000165 |
| 16000. | 1081. | 1.000192 | 1.000174 | -.000007 | 1.000160 |
| 18000. | 1072. | 1.000177 | 1.000161 | -.000013 | 1.000150 |
| 20000. | 1057. | 1.000162 | 1.000148 | -.000012 | 1.000141 |
| 25000. | 992. | 1.000130 | 1.000123 | -.000026 | 1.000120 |
| 30000. | 937. | 1.000106 | 1.000103 | -.000019 | 1.000101 |
| 35000. | 755. | 1.000089 | 1.000087 | -.000017 | 1.000085 |
| 40000. | 558. | 1.000074 | 1.000072 | -.000014 | 1.000069 |
| 45000. | 496. | 1.000062 | 1.000059 | -.000013 | 1.000055 |
| 50000. | 467. | 1.000050 | 1.000048 | -.000011 | 1.000044 |
| 55000. | 425. | 1.000040 | 1.000037 | -.000011 | 1.000035 |
| 60000. | 401. | 1.000030 | 1.000028 | -.000009 | 1.000027 |
| 65000. | 363. | 1.000023 | 1.000022 | -.000006 | 1.000021 |
| 70000. | 344. | 1.000018 | 1.000016 | -.000005 | 1.000016 |
| 75000. | 329. | 1.000014 | 1.000013 | -.000004 | 1.000012 |
| 80000. | 321. | 1.000011 | 1.000010 | -.000003 | 1.000009 |
| 85000. | 308. | 1.000008 | 1.000008 | -.000002 | 1.000007 |
| 90000. | 284. | 1.000007 | 1.000006 | -.000002 | 1.000006 |
| 95000. | 258. | 1.000005 | 1.000005 | -.000001 | 1.000004 |
| 100000. | 227. | 1.000004 | 1.000004 | -.000001 | 1.000003 |

TABLE XXII (CONT)
 MEAN AND EXTREME UPPER AIR INDEXES OF REFRACTION
 AT SELECTED LEVELS BY SEASONS
 STALLION SITE
 PERIOD OF RECORD 1961-1973

FALL

| GEOMETRIC ALTITUDE MSL FEET | TOTAL OBSERVATIONS | MAXIMUM | MEAN | GRADIENT | MINIMUM |
|--------------------------------|-----------------------|----------|----------|----------|----------|
| 4940. | 1035. | 1.000306 | 1.000262 | .000000 | 1.000233 |
| 5000. | 1186. | 1.000308 | 1.000260 | -.000002 | 1.000233 |
| 6000. | 1185. | 1.000290 | 1.000248 | -.000012 | 1.000217 |
| 7000. | 1185. | 1.000281 | 1.000239 | -.000009 | 1.000214 |
| 8000. | 1187. | 1.000272 | 1.000230 | -.000009 | 1.000208 |
| 9000. | 1188. | 1.000262 | 1.000222 | -.000009 | 1.000203 |
| 10000. | 1187. | 1.000245 | 1.000213 | -.000008 | 1.000197 |
| 11000. | 1188. | 1.000240 | 1.000205 | -.000008 | 1.000189 |
| 12000. | 1185. | 1.000234 | 1.000197 | -.000008 | 1.000181 |
| 13000. | 1184. | 1.000218 | 1.000189 | -.000008 | 1.000175 |
| 14000. | 1183. | 1.000207 | 1.000182 | -.000007 | 1.000170 |
| 15000. | 1178. | 1.000199 | 1.000175 | -.000007 | 1.000163 |
| 16000. | 1177. | 1.000192 | 1.000168 | -.000007 | 1.000160 |
| 18000. | 1175. | 1.000177 | 1.000156 | -.000012 | 1.000149 |
| 20000. | 1159. | 1.000160 | 1.000146 | -.000011 | 1.000141 |
| 25000. | 1077. | 1.000128 | 1.000123 | -.000023 | 1.000119 |
| 30000. | 945. | 1.000107 | 1.000103 | -.000019 | 1.000098 |
| 35000. | 783. | 1.000089 | 1.000086 | -.000017 | 1.000079 |
| 40000. | 628. | 1.000075 | 1.000071 | -.000015 | 1.000066 |
| 45000. | 562. | 1.000061 | 1.000057 | -.000014 | 1.000053 |
| 50000. | 537. | 1.000050 | 1.000046 | -.000011 | 1.000042 |
| 55000. | 470. | 1.000039 | 1.000036 | -.000010 | 1.000033 |
| 60000. | 441. | 1.000029 | 1.000027 | -.000008 | 1.000026 |
| 65000. | 418. | 1.000022 | 1.000021 | -.000006 | 1.000020 |
| 70000. | 398. | 1.000017 | 1.000016 | -.000005 | 1.000016 |
| 75000. | 379. | 1.000014 | 1.000012 | -.000003 | 1.000012 |
| 80000. | 365. | 1.000010 | 1.000010 | -.000003 | 1.000009 |
| 85000. | 344. | 1.000008 | 1.000008 | -.000002 | 1.000007 |
| 90000. | 315. | 1.000006 | 1.000006 | -.000002 | 1.000006 |
| 95000. | 270. | 1.000005 | 1.000005 | -.000001 | 1.000004 |
| 100000. | 229. | 1.000004 | 1.000004 | -.000001 | 1.000003 |

ATMOSPHERIC STRUCTURE REPORT

STALLION SITE

SECTION I

UPPER AIR FREEZING LEVEL DATA

| By Months and By Seasons | Page |
|---|------|
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FREEZING LEVEL

For this report the freezing level is defined as any altitude at which the temperature is 0° centigrade. Multiple freezing levels may occur on a single rawinsonde observation. The data presented is based on all freezing level occurrences.

TABLE XXIII
MEAN AND EXTREME HEIGHTS (FEET WSL) OF THE FREEZING LEVEL BY MONTHS AND BY SEASONS

STALLION SITE

PERIOD OF RECORD 1961-1973

| MONTH | TOTAL RAWINSONDE ASCENSIONS | MAXIMUM | MEAN | MINIMUM |
|-----------|-----------------------------------|---------|-------|---------|
| JANUARY | 424 | 15200 | 9200 | 4900 |
| FEBRUARY | 475 | 16100 | 9000 | 4900 |
| MARCH | 485 | 15100 | 9300 | 4900 |
| APRIL | 534 | 15300 | 11100 | 5400 |
| MAY | 463 | 16600 | 13100 | 6700 |
| JUNE | 354 | 17900 | 15000 | 11000 |
| JULY | 355 | 20700 | 16200 | 14300 |
| AUGUST | 387 | 18500 | 15800 | 13200 |
| SEPTEMBER | 366 | 18000 | 14700 | 9300 |
| OCTOBER | 419 | 17100 | 13600 | 5100 |
| NOVEMBER | 409 | 17300 | 11100 | 5000 |
| DECEMBER | 328 | 15200 | 9200 | 4900 |
| SEASON | | | | |
| WINTER | 1227 | 16100 | 9100 | 4900 |
| SPRING | 1482 | 16600 | 11100 | 4900 |
| SUMMER | 1096 | 20700 | 15700 | 11000 |
| FALL | 1194 | 18000 | 13000 | 5000 |

TABLE XXIV
RELATIVE FREQUENCY DISTRIBUTION OF THE FREEZING LEVEL BY MONTHS AND BY SEASONS (IN PERCENT)

STALLION SITE

PERIOD OF RECORD 1961-1973

GEOMETRIC ALTITUDE MSL FEET

| MONTH | TOTAL RAWINSUNDE ASCENSIONS | >4K <5K | >5K <6K | >6K <7K | >7K <8K | >8K <9K | >9K <10K | >10K <11K | >11K <12K | >12K <13K | >13K <14K | >14K <15K | >15K <16K | >16K <17K | >17K <18K | >18K <19K | >19K |
|-----------|-----------------------------------|------------|------------|------------|------------|------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|------|
| JANUARY | 424 | 0 | 14 | 9 | 13 | 13 | 13 | 14 | 11 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| FEBRUARY | 475 | 0 | 12 | 11 | 11 | 16 | 16 | 14 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MARCH | 485 | 1 | 10 | 8 | 16 | 10 | 17 | 8 | 5 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| APRIL | 534 | 0 | 1 | 2 | 4 | 6 | 10 | 25 | 21 | 7 | 5 | 1 | 0 | 0 | 0 | 0 | 0 |
| MAY | 463 | 0 | 0 | 0 | 0 | 2 | 3 | 10 | 22 | 26 | 24 | 8 | 1 | 0 | 0 | 0 | 0 |
| JUNE | 354 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 13 | 27 | 37 | 17 | 0 | 0 | 0 | 0 |
| JULY | 355 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 34 | 46 | 0 | 0 | 0 | 0 |
| AUGUST | 367 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 10 | 46 | 38 | 1 | 1 | 1 | 1 |
| SEPTEMBER | 366 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 14 | 30 | 35 | 12 | 1 | 0 | 0 | 0 |
| OCTOBER | 419 | 0 | 0 | 0 | 0 | 1 | 3 | 5 | 12 | 31 | 29 | 12 | 3 | 0 | 0 | 0 | 0 |
| NOVEMBER | 409 | 0 | 5 | 5 | 7 | 7 | 9 | 14 | 14 | 15 | 12 | 3 | 0 | 0 | 0 | 0 | 0 |
| DECEMBER | 328 | 1 | 17 | 11 | 12 | 7 | 10 | 11 | 13 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |

| SEASON | 1227 | 1482 | 1096 | 1194 |
|--------|------|------|------|------|
| WINTER | 1 | 14 | 10 | 9 |
| SPRING | 0 | 3 | 3 | 5 |
| SUMMER | 0 | 0 | 0 | 0 |
| FALL | 0 | 2 | 2 | 2 |

ATMOSPHERIC STRUCTURE REPORT

STALLION SITE

SECTION II

SURFACE DATA

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TABLE XXV

MONTHLY AND ANNUAL TEMPERATURE MEANS AND EXTREMES (°FAHRENHEIT) AT SEVEN WSMR SITES

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Annual |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|

STALLION SITE Elevation 4,940 FT MSL Period of Record 1962-1973

| | | | | | | | | | | | | | |
|----------|-----|----|----|----|----|-----|-----|-----|----|----|----|----|-----|
| Mean Max | 51 | 56 | 63 | 72 | 82 | 90 | 92 | 89 | 82 | 74 | 61 | 51 | 72 |
| Mean Min | 21 | 26 | 31 | 39 | 48 | 57 | 64 | 61 | 50 | 43 | 32 | 23 | 41 |
| Abs Max | 72 | 77 | 85 | 93 | 97 | 101 | 104 | 101 | 95 | 90 | 79 | 71 | 104 |
| Abs Min | -12 | 2 | 6 | 17 | 30 | 40 | 54 | 47 | 35 | 20 | 14 | 2 | -12 |

WSD* SITE Elevation 3,989 FT MSL Period of Record 1960-1973

| | | | | | | | | | | | | | |
|----------|-----|----|----|----|-----|-----|-----|-----|----|----|----|----|-----|
| Mean Max | 57 | 61 | 69 | 78 | 87 | 94 | 95 | 92 | 87 | 78 | 66 | 57 | 77 |
| Mean Min | 25 | 29 | 36 | 46 | 53 | 62 | 67 | 64 | 58 | 45 | 33 | 27 | 45 |
| Abs Max | 78 | 81 | 89 | 97 | 100 | 108 | 108 | 104 | 99 | 94 | 83 | 75 | 108 |
| Abs Min | -14 | 5 | 6 | 19 | 26 | 41 | 57 | 51 | 37 | 22 | 12 | 5 | -14 |

JALLEN SITE Elevation 4,051 FT MSL Period of Record 1963-1973

| | | | | | | | | | | | | | |
|----------|----|----|----|----|----|-----|-----|-----|----|----|----|----|-----|
| Mean Max | 55 | 59 | 67 | 76 | 86 | 92 | 95 | 91 | 85 | 77 | 64 | 56 | 75 |
| Mean Min | 25 | 29 | 35 | 44 | 52 | 61 | 67 | 65 | 57 | 46 | 34 | 27 | 45 |
| Abs Max | 76 | 81 | 89 | 98 | 98 | 108 | 106 | 106 | 98 | 92 | 84 | 76 | 108 |
| Abs Min | -2 | 5 | 7 | 22 | 30 | 43 | 58 | 50 | 37 | 28 | 16 | 7 | -2 |

APACHE SITE Elevation 3,956 FT MSL Period of Record 1963-1973

| | | | | | | | | | | | | | |
|----------|----|----|----|----|-----|-----|-----|-----|----|----|----|----|-----|
| Mean Max | 51 | 60 | 68 | 77 | 86 | 92 | 95 | 92 | 86 | 79 | 65 | 56 | 76 |
| Mean Min | 24 | 27 | 35 | 44 | 52 | 61 | 66 | 63 | 57 | 44 | 33 | 26 | 44 |
| Abs Max | 78 | 80 | 89 | 97 | 100 | 108 | 107 | 103 | 99 | 93 | 82 | 75 | 108 |
| Abs Min | -2 | 7 | 7 | 20 | 28 | 42 | 59 | 53 | 37 | 21 | 13 | 2 | -2 |

"A" SITE Elevation 4,238 FT MSL Period of Record 1950-1973

| | | | | | | | | | | | | | |
|----------|----|----|----|----|-----|-----|-----|-----|----|----|----|----|-----|
| Mean Max | 56 | 60 | 66 | 75 | 84 | 93 | 93 | 91 | 86 | 76 | 64 | 56 | 75 |
| Mean Min | 34 | 38 | 43 | 52 | 60 | 69 | 70 | 69 | 63 | 53 | 41 | 35 | 52 |
| Abs Max | 76 | 81 | 86 | 94 | 103 | 106 | 107 | 103 | 98 | 92 | 84 | 77 | 107 |
| Abs Min | -6 | 8 | 16 | 29 | 38 | 50 | 59 | 55 | 46 | 33 | 22 | 8 | -6 |

HMN* SITE [14] Elevation 4,090 FT MSL Period of Record 1942-1973

| | | | | | | | | | | | | | |
|----------|-----|----|----|----|-----|-----|-----|-----|-----|----|----|----|-----|
| Mean Max | 55 | 60 | 66 | 76 | 85 | 94 | 94 | 93 | 87 | 77 | 64 | 56 | 75 |
| Mean Min | 27 | 31 | 37 | 45 | 54 | 63 | 68 | 66 | 59 | 48 | 34 | 28 | 47 |
| Abs Max | 79 | 80 | 87 | 96 | 103 | 107 | 107 | 106 | 103 | 93 | 81 | 75 | 107 |
| Abs Min | -11 | 0 | 9 | 22 | 2 | 42 | 54 | 53 | 38 | 24 | 12 | 2 | -11 |

SMR* SITE Elevation 3,909 FT MSL Period of Record 1963-1973

| | | | | | | | | | | | | | |
|----------|----|----|----|----|-----|-----|-----|-----|----|----|----|----|-----|
| Mean Max | 56 | 60 | 68 | 77 | 86 | 93 | 95 | 91 | 86 | 77 | 65 | 56 | 76 |
| Mean Min | 27 | 31 | 39 | 48 | 56 | 64 | 68 | 65 | 60 | 47 | 37 | 29 | 48 |
| Abs Max | 78 | 83 | 87 | 96 | 100 | 106 | 108 | 103 | 98 | 93 | 82 | 74 | 108 |
| Abs Min | 4 | 7 | 9 | 22 | 32 | 42 | 59 | 57 | 42 | 23 | 16 | 6 | 4 |

*White Sands Desert

*Small Missile Range

*Holloman

TABLE XXVI

MONTHLY AND ANNUAL MEAN PRECIPITATION (INCHES) AT SEVEN WSMR SITES

| Site | Stallion | White Sands Desert | Jallen | "A" | Holloman* [14] | Small Missile Range | Apache |
|------------------|----------|--------------------|---------|---------|----------------|---------------------|---------|
| Elevation | 4,940 | 3,989 | 4,051 | 4,238 | 4,070 | 3,999 | 3,956 |
| Period of Record | 1963-73 | 1963-73 | 1966-73 | 1950-73 | 1942-73 | 1964-73 | 1964-73 |
| Jan | 0.12 | 0.29 | 0.26 | 0.48 | 0.41 | 0.29 | 0.29 |
| Feb | 0.19 | 0.40 | 0.34 | 0.57 | 0.40 | 0.39 | 0.18 |
| Mar | 0.29 | 0.25 | 0.14 | 0.52 | 0.53 | 0.26 | 0.17 |
| Apr | 0.10 | 0.14 | 0.07 | 0.22 | 0.12 | 0.13 | 0.12 |
| May | 0.30 | 0.15 | 0.37 | 0.23 | 0.30 | 0.16 | 0.15 |
| Jun | 0.97 | 1.39 | 0.77 | 0.89 | 0.98 | 1.04 | 0.96 |
| Jul | 1.71 | 1.94 | 1.82 | 2.29 | 1.86 | 1.89 | 1.35 |
| Aug | 2.13 | 2.06 | 1.50 | 1.86 | 1.95 | 2.48 | 2.13 |
| Sep | 1.27 | 1.39 | 1.07 | 1.29 | 1.32 | 1.15 | 1.21 |
| Oct | 0.96 | 0.75 | 0.98 | 1.06 | 1.04 | 0.77 | 0.63 |
| Nov | 0.25 | 0.37 | 0.44 | 0.42 | 0.34 | 0.35 | 0.35 |
| Dec | 0.52 | 0.47 | 0.55 | 0.76 | 0.62 | 0.64 | 0.58 |
| Annual | 8.80 | 10.20 | 8.27 | 10.59 | 8.76 | 9.55 | 7.87 |

*Precipitation records from Holloman Air Force Base were used for the period 1942-64; records from Holloman Rawinsonde Site were used for the years 1965-73.

TABLE XXVII
ANNUAL RAINFALL (INCHES)
BY YEARS AT STALLION SITE
1963-1973

| Year | Rainfall |
|------|----------|
| 1963 | 6.90 |
| 1964 | 5.05 |
| 1965 | 9.36 |
| 1966 | 7.68 |
| 1967 | 11.73 |
| 1968 | 8.68 |
| 1969 | 10.82 |
| 1970 | 3.73 |
| 1971 | 10.65 |
| 1972 | 13.44 |
| 1973 | 8.86 |

TABLE XXVIII
MONTHLY AND ANNUAL MEAN AND MAXIMUM
SNOWFALL (INCHES) AT "A" STATION
1950-1973

| Month | Mean Snowfall | Maximum Snowfall | Date |
|--------|------------------|---------------------|-------|
| Jan | 1.3 | 6.9 | 1972 |
| Feb | 1.5 | 8.6 | 1952 |
| Mar | 0.5 | 3.5 | 1958 |
| Apr | 0.0 | T | 1971* |
| May | 0.0 | 0.0 | |
| Jun | 0.0 | 0.0 | |
| Jul | 0.0 | 0.0 | |
| Aug | 0.0 | 0.0 | |
| Sep | 0.0 | 0.0 | |
| Oct | 0.0 | T | 1972* |
| Nov | 0.8 | 6.2 | 1961 |
| Dec | 2.4 | 14.9 | 1967 |
| Annual | 6.5 | 18.5 | 1969 |

*Also occurred on prior dates
NOTE: "A" Station snowfall records have been presented since
this data is not available from Stallion Site.

TABLE XXIX
SURFACE WIND DATA BY MONTH AND BY HOUR
STATION SITE WHITE SANDS MISSILE RANGE, NEW MEXICO
PERIOD OF RECORD 1965-1973

| HOUR | RESULTANT WIND DIR SPD (DEG)(KT) | PRVL DIR** | SCALAR MEAN SPD (KT) | JANUARY | | | TOTAL OBSNS |
|---------------|---|---------------|-------------------------------|---------|---------|---------|----------------|
| | | | | DIP | SPD DAY | GUST YR | |
| | | | | (DEG) | (KT) | | |
| 1 | 353 2.5 | N | 4.1 | 360 | 50 | 11 1966 | 262 |
| 2 | 355 2.5 | N | 4.1 | 70 | 31 | 4 1972 | 261 |
| 3 | 357 2.7 | N | 4.2 | 70 | 34 | 4 1972 | 261 |
| 4 | 356 2.4 | N | 4.0 | 70 | 29 | 4 1972 | 261 |
| 5 | 354 2.2 | N | 3.9 | 360 | 29 | 14 1967 | 261 |
| 6 | 356 2.4 | N | 3.9 | 360 | 33 | 6 1967 | 261 |
| 7 | 360 2.4 | N | 3.7 | 360 | 37 | 6 1967 | 262 |
| 8 | 4 2.1 | N | 3.4 | 340 | 42 | 6 1967 | 262 |
| 9 | 23 1.9 | NNE | 3.4 | 360 | 40 | 6 1967 | 266 |
| 10 | 14 1.2 | NNE | 3.9 | 360 | 32 | 6 1967 | 266 |
| 11 | 332 1.0 | S | 4.9 | 250 | 32 | 23 1964 | 268 |
| 12 | 301 1.3 | S | 5.8 | 260 | 34 | 22 1969 | 267 |
| 13 | 292 1.6 | SSW | 6.4 | 270 | 39 | 22 1969 | 267 |
| 14 | 285 1.9 | SSW | 6.9 | 200 | 40 | 2 1971 | 267 |
| 15 | 294 1.8 | SSW | 6.9 | 200 | 39 | 2 1971 | 268 |
| 16 | 298 1.9 | SSW | 6.9 | 210 | 37 | 19 1973 | 268 |
| 17 | 307 1.4 | N | 5.9 | 220 | 33 | 19 1973 | 264 |
| 18 | 308 1.7 | N | 4.5 | 70 | 33 | 3 1972 | 264 |
| 19 | 313 2.0 | N | 4.6 | 70 | 36 | 3 1972 | 264 |
| 20 | 331 1.9 | N | 4.3 | 70 | 32 | 3 1972 | 264 |
| 21 | 337 2.1 | N | 4.4 | 70 | 42 | 3 1972 | 264 |
| 22 | 341 2.5 | N | 4.5 | 70 | 38 | 3 1972 | 264 |
| 23 | 347 2.4 | N | 4.6 | 70 | 37 | 3 1972 | 264 |
| 24 | 349 2.5 | N | 4.4 | 70 | 36 | 3 1972 | 264 |
| FOR THE MONTH | | | | | | | |
| 368 | 1.8 | N | 4.7 | | 50 | | 6344 |

*ALSO OCCURRED ON PRIOR DATES

-10 INDICATES A MISSING DIRECTION

**PRVL DIR IS THE PREVAILING WIND DIRECTION, I. E., THE WIND DIRECTION MOST FREQUENTLY OBSERVED DURING THE GIVEN PERIOD

TABLE XXIX (CONT)
SURFACE WIND DATA BY MONTH AND BY HOUR
STATION FOR SIFT MISSILE RANGE, NEW MEXICO
PERIOD OF RECORD 1965-1973

| FEBRUARY | | | | | | | | | | TOTAL OBSNS |
|---------------|-------------|-------------|-------|---------------------|-------------|-------------|---------------------|-----------------------------|-------|----------------|
| HR | DIR (KT) | SPD (KT) | DIR** | MEAN SPD (KT) | DIR (KT) | SPD (KT) | PEAK GUST DIR | PEAK GUST SPD (KT) | YR | |
| 1 | 352 | 2.7 | U | 4.8 | 70 | 37 | 9 | 1967 | 1967 | 241 |
| 2 | 351 | 2.0 | U | 4.9 | 70 | 39 | 6 | 1967 | 1967 | 241 |
| 3 | 355 | 3.0 | N | 4.9 | 270 | 34 | 15 | 1967 | 1967 | 241 |
| 4 | 352 | 2.8 | U | 4.7 | 30 | 30 | 22 | 1972* | 1972* | 240 |
| 5 | 350 | 2.9 | U | 4.6 | 40 | 29 | 15 | 1973* | 1973* | 239 |
| 6 | 350 | 3.3 | N | 4.6 | 30 | 29 | 9 | 1973 | 1973 | 239 |
| 7 | 350 | 3.2 | U | 4.4 | 50 | 28 | 21 | 1973 | 1973 | 236 |
| 8 | 35 | 2.0 | U | 4.2 | 50 | 31 | 21 | 1973 | 1973 | 239 |
| 9 | 35 | 3.2 | U | 5.1 | 360 | 40 | 20 | 1970 | 1970 | 243 |
| 10 | 0 | 1.0 | U | 5.6 | 330 | 36 | 1 | 1972 | 1972 | 243 |
| 11 | 305 | 1.4 | S | 5.4 | 140 | 36 | 20 | 1971 | 1971 | 242 |
| 12 | 200 | 1.5 | U | 7.0 | 340 | 37 | 7 | 1971 | 1971 | 242 |
| 13 | 201 | 1.8 | S | 7.0 | 140 | 37 | 20 | 1971 | 1971 | 242 |
| 14 | 202 | 1.4 | S | 7.4 | 320 | 37 | 7 | 1971 | 1971 | 242 |
| 15 | 209 | 1.3 | S | 7.4 | 320 | 35 | 20 | 1967 | 1967 | 242 |
| 16 | 207 | 1.1 | S | 7.5 | 260 | 49 | 3 | 1971 | 1971 | 243 |
| 17 | 208 | .7 | S | 7.1 | 250 | 32 | 24 | 1971 | 1971 | 240 |
| 18 | 244 | .5 | SSN | 5.7 | 350 | 33 | 15 | 1966 | 1966 | 240 |
| 19 | 310 | 1.8 | S | 4.9 | 350 | 33 | 15 | 1966 | 1966 | 240 |
| 20 | 321 | 1.3 | N | 4.7 | 320 | 28 | 14 | 1970* | 1970* | 240 |
| 21 | 326 | 1.0 | U | 4.8 | 70 | 45 | 5 | 1967 | 1967 | 240 |
| 22 | 320 | 2.4 | U | 4.8 | 70 | 44 | 5 | 1967 | 1967 | 240 |
| 23 | 345 | 2.5 | UNA | 4.7 | 70 | 36 | 5 | 1967 | 1967 | 240 |
| 24 | 355 | 2.0 | U | 4.8 | 350 | 42 | 21 | 1968 | 1968 | 240 |
| FOR THE MONTH | | | | | | | | | | 5777 |
| 302 | 1.0 | U | 5.5 | 49 | | | | | | |

*ALSO OCCURRED ON PRIOR DATES

-U- INDICATES A MISSING DIRECTION

**PRVL DIR IS THE PREVAILING WIND DIRECTION, I. E., THE WIND DIRECTION MOST FREQUENTLY OBSERVED DURING THE GIVEN PERIOD

TABLE XXIX (CONT)
SURFACE WIND DATA BY MONTH AND BY HOUR
STATION SITE WHITE SANDS MISSILE RANGE, NEW MEXICO
PERIOD OF RECORD 1965-1973

| HOUR | RESULTANT WIND (DEG) (MI) | PRVL DIR** | SCALE MEAN SPD (KT) | PEAK DIR SPD (KT) | GUST DAY | YR | TOTAL OBSNS |
|---------------|---------------------------------|---------------|------------------------------|-------------------------|-------------|----------|----------------|
| | | | | | | | |
| 1 | 332 2.2 | N | 5.2 | 200 | 30 | 5 1971 | 261 |
| 2 | 340 2.7 | N | 5.4 | 70 | 32 | 11 1968 | 261 |
| 3 | 342 2.6 | N | 5.2 | 330 | 33 | 4 1972 | 261 |
| 4 | 345 2.7 | N | 5.2 | 70 | 28 | 11 1968 | 260 |
| 5 | 348 3.2 | N | 5.3 | 240 | 40 | 12 1971 | 260 |
| 6 | 353 3.1 | N | 5.2 | 210 | 25 | 29 1973* | 260 |
| 7 | 357 3.2 | N | 5.2 | 40 | 28 | 2 1971* | 260 |
| 8 | 10 2.6 | N | 5.5 | 10 | 33 | 22 1966 | 261 |
| 9 | 10 1.4 | N/E | 6.4 | 250 | 39 | 2 1966 | 257 |
| 10 | 270 .9 | S | 7.6 | 220 | 39 | 2 1966 | 257 |
| 11 | 256 1.9 | S | 8.1 | 200 | 43 | 27 1970 | 257 |
| 12 | 245 2.4 | SSW | 8.9 | 250 | 40 | 13 1973 | 257 |
| 13 | 239 3.8 | SSW | 9.3 | 260 | 41 | 27 1970 | 257 |
| 14 | 240 4.1 | SSW | 9.4 | 250 | 47 | 5 1971 | 257 |
| 15 | 241 4.4 | SSW | 9.9 | 240 | 44 | 5 1971* | 258 |
| 16 | 241 4.0 | SSW | 10.0 | 290 | 61 | 24 1971 | 258 |
| 17 | 246 3.7 | S | 9.3 | 240 | 42 | 5 1971 | 260 |
| 18 | 243 2.9 | S | 8.3 | 240 | 53 | 11 1972 | 260 |
| 19 | 254 2.4 | S | 6.4 | 270 | 45 | 29 1967 | 260 |
| 20 | 272 2.3 | N | 5.6 | 270 | 38 | 29 1967 | 260 |
| 21 | 266 2.3 | SSW | 5.8 | 310 | 32 | 5 1971 | 260 |
| 22 | 304 2.2 | SSW | 5.4 | 240 | 34 | 29 1967 | 260 |
| 23 | 315 2.2 | NW | 5.4 | 360 | 33 | 17 1966 | 260 |
| 24 | 326 2.0 | N | 5.4 | 360 | 38 | 17 1970 | 259 |
| FOR THE MONTH | | | | | | | 6221 |
| 250 | 1.8 | N | 6.4 | 61 | | | |

*ALSO OCCURRED ON PRIOR DATES

-10 INDICATES A MISSING DIRECTION

**PRVL DIR IS THE PREVAILING WIND DIRECTION, I. E., THE WIND DIRECTION MOST FREQUENTLY OBSERVED DURING THE GIVEN PERIOD

TABLE XXIX (CONT)
SURFACE WIND DATA BY MONTH AND BY HOUR
STATION SITE: WHITE SANDS MISSILE RANGE, NEW MEXICO
PERIOD OF RECORD: 1965-1973

| HR | RESULTANT WIND DIR SPD (DEG)(KT) | PRVL DIR** | SCALAR MEAN SPD (KT) | APRIL | | | TOTAL OBSNS |
|---------------|---|---------------|-------------------------------|--------------|-------------|---------------------|----------------|
| | | | | DIR (DEG) | SPD (KT) | PEAK GUST DAY YR | |
| | | | | | | | |
| 1 | 326 2.1 | N | 5.5 | 20 | 26 | 6 1971* | 260 |
| 2 | 338 2.7 | N | 5.5 | 330 | 33 | 19 1973 | 260 |
| 3 | 341 2.6 | N | 5.4 | 210 | 30 | 12 1967 | 260 |
| 4 | 342 2.7 | N | 5.3 | 210 | 32 | 30 1973* | 260 |
| 5 | 345 2.9 | N | 5.2 | 330 | 32 | 25 1969 | 260 |
| 6 | 348 2.9 | N | 5.3 | 320 | 27 | 25 1969 | 260 |
| 7 | 4 2.8 | N | 5.5 | 270 | 36 | 19 1973 | 260 |
| 8 | 21 2.2 | WIDE | 6.7 | 60 | 36 | 14 1966 | 260 |
| 9 | 332 .6 | S | 7.4 | 50 | 38 | 1 1966 | 263 |
| 10 | 244 1.7 | S | 9.4 | 200 | 38 | 30 1973* | 263 |
| 11 | 235 3.5 | SSW | 9.2 | 200 | 38 | 13 1972 | 263 |
| 12 | 228 4.8 | SSW | 9.5 | 230 | 41 | 14 1973 | 263 |
| 13 | 230 5.9 | SSW | 10.5 | 180 | 53 | 25 1972 | 263 |
| 14 | 232 6.5 | SSW | 10.8 | 220 | 54 | 15 1971 | 263 |
| 15 | 235 6.7 | SSW | 11.2 | 210 | 45 | 18 1972 | 263 |
| 16 | 235 6.5 | SSW | 11.3 | 200 | 61 | 21 1970 | 263 |
| 17 | 241 5.7 | SSW | 11.3 | 240 | 44 | 12 1972 | 261 |
| 18 | 242 4.9 | SSW | 10.6 | 220 | 42 | 14 1972 | 261 |
| 19 | 251 3.1 | S | 9.8 | 350 | 41 | 7 1973 | 261 |
| 20 | 250 2.7 | S | 7.2 | 30 | 32 | 7 1973 | 261 |
| 21 | 284 2.4 | SSW | 6.5 | 30 | 34 | 5 1971 | 261 |
| 22 | 290 2.4 | SSW | 6.0 | 200 | 37 | 21 1970 | 261 |
| 23 | 301 2.6 | N | 5.8 | 230 | 36 | 18 1966 | 261 |
| 24 | 310 2.1 | N | 5.6 | 20 | 30 | 5 1971 | 261 |
| FOR THE MONTH | | | | | | | |
| 26 | 2.3 | N | 7.7 | | 61 | | 6272 |

*ALSO OCCURRED ON PRIOR DATES

-10 INDICATES A MISSING DIRECTION

**PRVL DIR IS THE PREVAILING WIND DIRECTION, I. E., THE WIND DIRECTION MOST FREQUENTLY OBSERVED DURING THE GIVEN PERIOD

TABLE XXIX (CONT)
SURFACE WIND DATA BY MONTH AND BY HOUR
STATION SITE WHITE SANDS MISSILE RANGE, NEW MEXICO
PERIOD OF RECORD 1965-1973

| DAY | DIR | RESULANT WIND | PRVL DIR** | SCALAR MEAN | DIR SPD (KT) | PEAK GUST | YR | TOTAL OBSNS |
|---------------|-----|------------------|---------------|----------------|-----------------|--------------|----------|----------------|
| | | | | | | | | |
| 1 | 346 | 2.3 | N | 5.5 | 20 | 36 | 1 1968 | 245 |
| 2 | 357 | 2.6 | N | 5.3 | 60 | 34 | 15 1970 | 246 |
| 3 | 357 | 3.2 | N | 5.1 | 60 | 29 | 15 1970 | 245 |
| 4 | 356 | 3.3 | N | 5.2 | 30 | 33 | 31 1973 | 245 |
| 5 | 360 | 3.4 | N | 5.3 | 50 | 48 | 11 1965 | 245 |
| 6 | 5 | 3.3 | N | 5.1 | 260 | 35 | 26 1973 | 243 |
| 7 | 22 | 3.2 | N | 5.4 | 260 | 38 | 26 1973 | 242 |
| 8 | 43 | 2.0 | UNE | 6.3 | 330 | 38 | 27 1973 | 247 |
| 9 | 187 | .1 | S | 7.0 | 330 | 37 | 27 1973 | 251 |
| 10 | 233 | 2.0 | SSW | 7.7 | 260 | 37 | 10 1966 | 251 |
| 11 | 230 | 3.5 | SSW | 8.5 | 190 | 40 | 5 1973 | 250 |
| 12 | 225 | 4.7 | SSW | 8.9 | 180 | 38 | 4 1971* | 251 |
| 13 | 224 | 5.7 | SSW | 9.6 | 190 | 40 | 4 1971 | 251 |
| 14 | 227 | 5.4 | SSW | 10.2 | 210 | 43 | 4 1971 | 250 |
| 15 | 225 | 6.5 | SSW | 10.6 | 350 | 54 | 7 1967 | 252 |
| 16 | 226 | 6.5 | SSW | 11.0 | 240 | 40 | 13 1967* | 252 |
| 17 | 225 | 6.3 | SSW | 11.1 | 180 | 40 | 27 1969* | 250 |
| 18 | 225 | 5.6 | SSW | 10.3 | 160 | 43 | 12 1973 | 249 |
| 19 | 225 | 4.1 | S | 8.9 | 300 | 36 | 11 1969 | 249 |
| 20 | 240 | 2.7 | WSW | 7.4 | 330 | 37 | 22 1973 | 248 |
| 21 | 262 | 2.1 | W | 6.6 | 50 | 42 | 6 1972 | 248 |
| 22 | 294 | 1.8 | WNW | 6.0 | 40 | 36 | 6 1972 | 247 |
| 23 | 310 | 1.9 | W | 5.5 | 40 | 42 | 6 1972 | 246 |
| 24 | 336 | 1.7 | N | 5.6 | 40 | 39 | 11 1973 | 246 |
| FOR THE MONTH | | | | | | | | 5949 |
| 254 | 1.4 | | N | 7.4 | | 54 | | |

*ALSO OCCURRED ON PRIOR DATES

-10 INDICATES A MISSING DIRECTION

**PRVL DIR IS THE PREVAILING WIND DIRECTION, I. E., THE WIND DIRECTION, MOST FREQUENTLY OBSERVED DURING THE GIVEN PERIOD

TABLE XXIX (CONT)

SURFACE WIND DATA BY MONTH AND BY HOUR
STATION SITE WHITE SANDS MISSILE RANGE, NEW MEXICO
PERIOD OF RECORD 1965-1973

| H | RESULTANT WIND | PRVL DIR** | SCALAR MEAN SPD (KT) | PEAK GUST | | TOTAL OBSNS |
|---------------|-------------------|---------------|-------------------------------|----------------|----------|----------------|
| | | | | HR SPD (KT) | DAY YR | |
| 1 | 327 1.8 | N | 4.3 | 270 29 | 25 1969 | 251 |
| 2 | 340 1.8 | N | 4.3 | 360 30 | 11 1970 | 251 |
| 3 | 350 1.9 | N | 4.3 | 360 30 | 11 1970* | 251 |
| 4 | 353 2.1 | N | 4.2 | 340 25 | 29 1967 | 251 |
| 5 | 355 2.2 | N | 4.3 | 360 30 | 9 1966 | 250 |
| 6 | 2 2.3 | N | 4.1 | 360 34 | 9 1966 | 248 |
| 7 | 22 2.0 | N | 4.7 | 360 34 | 9 1966 | 250 |
| 8 | 34 1.0 | NE | 5.3 | 360 32 | 9 1966 | 254 |
| 9 | 140 1.1 | SSW | 6.0 | 240 30 | 15 1967* | 251 |
| 10 | 211 2.6 | SSW | 6.9 | 30 30 | 9 1966 | 252 |
| 11 | 212 3.8 | SSW | 7.4 | 210 32 | 24 1969 | 253 |
| 12 | 220 4.7 | SSW | 8.0 | 230 32 | 26 1965 | 252 |
| 13 | 219 5.3 | SSW | 8.6 | 180 46 | 29 1969 | 252 |
| 14 | 220 5.9 | SSW | 9.0 | 230 38 | 13 1973 | 251 |
| 15 | 223 6.2 | SSW | 9.6 | 210 46 | 15 1970 | 252 |
| 16 | 215 6.1 | SSW | 10.2 | 90 41 | 29 1967 | 252 |
| 17 | 216 5.5 | SSW | 10.2 | 240 45 | 2 1973 | 252 |
| 18 | 216 4.4 | SSW | 10.0 | 210 40 | 13 1973 | 251 |
| 19 | 216 4.1 | SSW | 8.7 | 240 42 | 3 1967 | 250 |
| 20 | 221 2.8 | S | 6.6 | 360 42 | 10 1973 | 251 |
| 21 | 250 2.2 | N | 6.2 | 230 40 | 18 1969 | 251 |
| 22 | 270 1.9 | N | 5.6 | 360 39 | 6 1969 | 251 |
| 23 | 240 1.3 | N | 4.7 | -10 27 | 12 1973 | 249 |
| 24 | 305 1.4 | NNW | 4.5 | 200 36 | 18 1965 | 249 |
| FOR THE MONTH | | | | | | |
| | 255 2.0 | SSW | 6.6 | 46 | | 6025 |

*ALSO OCCURRED ON PRIOR DATES

-10 INDICATES A MISSING DIRECTION

**PRVL DIR IS THE PREVAILING WIND DIRECTION, I. E., THE WIND DIRECTION MOST FREQUENTLY OBSERVED DURING THE GIVEN PERIOD

TABLE XXIX (CONT.)
SURFACE WIND DATA BY MONTH AND BY HOUR
STATION SITE WHITE SANDS MISSILE RANGE, NEW MEXICO
PERIOD OF RECORD 1965-1973

| STATION | RESULTANT WIND (DEG) | PRVL DIR** | SCALAR MEAN SPD (KT) | JULY | | PEAK GUST SPD (KT) | DAY | YR | TOTAL OBSNS |
|---------------|----------------------------|---------------|-------------------------------|--------------|-------------|--------------------------|-------|------|----------------|
| | | | | DIR (DEG) | SPD (KT) | | | | |
| 1 | 7 | N | 4.4 | 120 | 27 | 8 | 1966* | 246 | |
| 2 | 11 | N | 4.1 | 60 | 25 | 20 | 1971* | 247 | |
| 3 | 6 | N | 4.1 | 50 | 29 | 26 | 1973 | 247 | |
| 4 | 4 | N | 3.0 | 50 | 24 | 31 | 1973 | 247 | |
| 5 | 10 | N | 3.8 | 30 | 25 | 31 | 1969 | 246 | |
| 6 | 10 | N | 4.0 | 40 | 25 | 31 | 1969 | 241 | |
| 7 | 26 | N | 4.6 | 40 | 27 | 25 | 1973 | 245 | |
| 8 | 50 | ENE | 5.2 | 40 | 32 | 25 | 1973 | 246 | |
| 9 | 60 | S | 5.2 | 60 | 29 | 25 | 1973 | 247 | |
| 10 | 155 | S | 5.5 | 60 | 31 | 25 | 1973 | 246 | |
| 11 | 207 | SSW | 5.7 | 40 | 28 | 31 | 1969 | 246 | |
| 12 | 207 | SSW | 5.9 | 120 | 30 | 19 | 1969 | 247 | |
| 13 | 204 | SSW | 6.2 | 240 | 34 | 19 | 1969 | 247 | |
| 14 | 204 | SSW | 6.8 | 160 | 48 | 18 | 1969 | 246 | |
| 15 | 194 | S | 7.6 | 320 | 43 | 14 | 1968 | 249 | |
| 16 | 194 | S | 8.1 | 180 | 42 | 7 | 1965 | 249 | |
| 17 | 183 | S | 8.9 | 80 | 46 | 31 | 1966 | 245 | |
| 18 | 190 | S | 9.1 | 120 | 44 | 6 | 1973 | 242 | |
| 19 | 160 | S | 8.0 | 150 | 37 | 6 | 1973 | 244 | |
| 20 | 137 | S | 8.7 | 170 | 41 | 25 | 1973 | 243 | |
| 21 | 58 | S | 5.7 | 360 | 33 | 31 | 1969 | 244 | |
| 22 | 6 | N | 5.3 | 110 | 44 | 12 | 1967 | 242 | |
| 23 | 359 | N | 4.6 | 50 | 30 | 31 | 1965 | 240 | |
| 24 | 354 | N | 4.6 | 360 | 25 | 5 | 1970* | 243 | |
| FOR THE MONTH | | | | | | | | | |
| | 44 | N | 5.7 | | 48 | | | 5885 | |

*ALSO OCCURRED ON PRIOR DATES

-10 INDICATES A MISSING DIRECTION

**PRVL DIR IS THE PREVAILING WIND DIRECTION, I. E., THE WIND DIRECTION MOST FREQUENTLY OBSERVED DURING THE GIVEN PERIOD

TABLE XXIX (CONT)
SURFACE WIND DATA BY MONTH AND BY HOUR
JAGLION SITE, JAGLE SANDS MISSILE RANGE, NEW MEXICO
PERIOD OF RECORD 1965-1973

| | DIR | RESULTANT DIR | PRVL DIR** | SCALAR SPD (KT) | PEAK SPD (KT) | AUGUST | | TOTAL OBSNS |
|---------------|-----|------------------|---------------|-----------------------|---------------------|-----------|-----------|----------------|
| | | | | | | DIR SPD | PEAK GUST | |
| | | | | | | (DEG)(KT) | YR | |
| 1 | 357 | 1.7 | N | 4.0 | 10 | 24 | 10 1966 | 244 |
| 2 | 360 | 1.0 | N | 3.8 | 40 | 20 | 24 1966 | 244 |
| 3 | 1 | 2.1 | N | 3.6 | 220 | 24 | 25 1972 | 243 |
| 4 | 5 | 2.3 | N | 3.0 | 30 | 28 | 2 1966 | 245 |
| 5 | 4 | 2.6 | N | 3.8 | 70 | 32 | 2 1966 | 245 |
| 6 | 7 | 2.8 | N | 3.8 | 60 | 29 | 2 1966 | 244 |
| 7 | 14 | 2.9 | N | 4.1 | 60 | 23 | 2 1966 | 245 |
| 8 | 45 | 2.4 | ENE | 4.4 | 30 | 24 | 25 1972 | 245 |
| 9 | 95 | .8 | S | 4.5 | 40 | 27 | 25 1972 | 245 |
| 10 | 174 | 1.1 | S | 4.0 | 70 | 24 | 25 1972 | 245 |
| 11 | 200 | 1.6 | SSW | 5.3 | 30 | 25 | 22 1966 | 247 |
| 12 | 205 | 1.7 | SSW | 5.5 | 50 | 26 | 22 1966 | 247 |
| 13 | 206 | 2.1 | S | 6.0 | 120 | 29 | 9 1972 | 240 |
| 14 | 210 | 2.4 | S | 6.4 | 60 | 33 | 10 1971 | 244 |
| 15 | 190 | 3.1 | S | 7.2 | 100 | 43 | 10 1973 | 244 |
| 16 | 194 | 2.8 | S | 7.6 | 270 | 40 | 10 1971 | 246 |
| 17 | 194 | 2.4 | S | 7.7 | 30 | 45 | 6 1972 | 246 |
| 18 | 174 | 2.3 | S | 7.5 | 320 | 51 | 11 1966 | 246 |
| 19 | 176 | 1.7 | S | 6.6 | 90 | 43 | 7 1971 | 246 |
| 20 | 155 | .6 | S | 5.8 | 60 | 36 | 8 1971 | 246 |
| 21 | 151 | .2 | S | 5.0 | 320 | 37 | 21 1972 | 246 |
| 22 | 354 | .5 | S | 4.8 | 240 | 31 | 28 1971 | 246 |
| 23 | 327 | .5 | N | 4.4 | 220 | 27 | 21 1968 | 245 |
| 24 | 352 | 1.1 | N | 4.2 | 70 | 27 | 24 1972 | 245 |
| FOR THE MONTH | | | | | | | | 5885 |
| 208 | .1 | | N | 3.2 | | 51 | | |

*ALSO OCCURRED ON PRIOR DATES

-10 INDICATES A MISSING DIRECTION

**PRVL DIR IS THE PREVAILING WIND DIRECTION, I. E., THE WIND DIRECTION MOST FREQUENTLY OBSERVED DURING THE GIVEN PERIOD

TABLE XXIX (CONT)

SURFACE WIND DATA BY MONTH AND BY HOUR
STATION SITE: JMWL SAMS MISSILE RANGE, NEW MEXICO
PERIOD OF RECORD: 1965-1973

| HOUR | RESULT | TACT | DIR** | PRVL | SEPTMBER | | | PEAK GUST | TOTAL OBSNS |
|---------------|--------------|------|-------|------|--------------|----------|-------------|-----------|-------------|
| | | | | | DIR SPD (KT) | SPD (KT) | SCALAR MEAN | | |
| | DIR SPD (KT) | | | | | | | | |
| 1 | 345 | 1.2 | N | | 30 | 3.6 | | 31 | 10 1970 |
| 2 | 351 | 1.5 | N | | 30 | 3.6 | | 31 | 10 1970 |
| 3 | 357 | 1.9 | N | | 30 | 3.8 | | 30 | 10 1970 |
| 4 | 358 | 2.0 | N | | 30 | 3.8 | | 31 | 10 1970 |
| 5 | 359 | 2.3 | N | | 30 | 3.9 | | 31 | 16 1971 |
| 6 | 2 | 2.6 | N | | 30 | 4.1 | | 33 | 16 1971 |
| 7 | 15 | 2.5 | N | | 20 | 4.2 | | 27 | 10 1970 |
| 8 | 31 | 2.6 | N | | 200 | 4.9 | | 29 | 22 1970* |
| 9 | 04 | 1.1 | S | | 70 | 5.1 | | 28 | 15 1971* |
| 10 | 190 | .4 | SSW | | 70 | 6.1 | | 28 | 30 1966* |
| 11 | 227 | 1.5 | SSW | | 60 | 6.4 | | 29 | 21 1972* |
| 12 | 225 | 2.1 | S | | 240 | 6.6 | | 29 | 17 1971* |
| 13 | 227 | 2.7 | SSW | | 200 | 7.1 | | 33 | 23 1973 |
| 14 | 226 | 3.0 | SSW | | 160 | 7.4 | | 38 | 4 1969 |
| 15 | 226 | 3.1 | SSW | | 200 | 7.6 | | 35 | 23 1973 |
| 16 | 232 | 2.7 | SSW | | 30 | 7.8 | | 36 | 22 1971 |
| 17 | 218 | 2.1 | S | | 60 | 7.7 | | 45 | 27 1966 |
| 18 | 193 | 1.5 | S | | 250 | 6.5 | | 38 | 23 1967 |
| 19 | 210 | 1.0 | S | | 30 | 5.0 | | 30 | 22 1971* |
| 20 | 245 | .6 | S | | 360 | 4.4 | | 34 | 2 1966 |
| 21 | 240 | .9 | SSW | | 330 | 4.0 | | 27 | 25 1973* |
| 22 | 310 | .9 | N | | 60 | 3.9 | | 25 | 22 1971 |
| 23 | 344 | .9 | N | | 40 | 3.7 | | 32 | 9 1970 |
| 24 | 347 | 1.2 | N | | 40 | 3.7 | | 32 | 9 1970 |
| FOR THE MONTH | | | | | | | | | |
| | 244 | .6 | N | | | 5.2 | | 45 | 6158 |

*ALSO OCCURRED ON PRIOR DATES

-10 INDICATES A MISSING DIRECTION

**PRVL DIR IS THE PREVAILING WIND DIRECTION, I. E., THE WIND DIRECTION, MOST FREQUENTLY OBSERVED DURING THE GIVEN PERIOD

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TABLE XXIX (CONT)
SURFACE WIND DATA BY MONTH AND BY HOUR
STATION SITE: WHITE SANDS MISSILE RANGE, NEW MEXICO
PERIOD OF RECORD: 1965-1973

| OCTOBER | OBS | RESULTANT WIND DIR SPD (KTS) (KT) | PRVL DIR** | SCALAR MEAN SPD (KT) | PEAK GUST DIR SPD (KT) (KT) | YR | TOTAL OBSNS |
|---------------|-----|--|---------------|-------------------------------|--------------------------------------|---------|----------------|
| | | | | | | | |
| 1 | 359 | 2.9 | N | 4.5 | 300 32 | 14 1966 | 270 |
| 2 | 350 | 3.2 | N | 4.7 | 360 38 | 14 1966 | 270 |
| 3 | 3 | 3.5 | N | 4.8 | 460 42 | 14 1966 | 270 |
| 4 | 3 | 3.5 | N | 4.7 | 300 40 | 14 1966 | 270 |
| 5 | 3 | 3.7 | N | 4.8 | 360 32 | 14 1966 | 270 |
| 6 | 4 | 3.8 | N | 4.4 | 60 33 | 31 1972 | 270 |
| 7 | 4 | 3.5 | N | 4.7 | 20 39 | 29 1967 | 271 |
| 8 | 24 | 3.5 | WNE | 5.5 | 10 42 | 29 1967 | 271 |
| 9 | 35 | 2.1 | ENE | 5.2 | 460 36 | 29 1967 | 273 |
| 10 | 30 | .2 | SSW | 5.7 | 220 40 | 29 1971 | 272 |
| 11 | 233 | .7 | S | 6.8 | 220 43 | 29 1971 | 272 |
| 12 | 235 | 1.6 | SSW | 7.2 | 220 39 | 29 1971 | 272 |
| 13 | 227 | 2.3 | SSW | 7.4 | 220 37 | 29 1971 | 272 |
| 14 | 223 | 2.9 | SSW | 7.5 | 230 39 | 29 1971 | 273 |
| 15 | 217 | 2.6 | SSW | 7.1 | 240 38 | 29 1971 | 273 |
| 16 | 217 | 2.8 | SSW | 7.1 | 240 35 | 13 1969 | 273 |
| 17 | 207 | 2.5 | SSW | 6.7 | 200 32 | 8 1973 | 268 |
| 18 | 213 | 1.6 | S | 5.1 | 330 31 | 25 1972 | 268 |
| 19 | 251 | 1.3 | S | 4.7 | 220 50 | 7 1970 | 268 |
| 20 | 286 | 1.1 | N | 4.5 | 210 52 | 7 1970 | 268 |
| 21 | 325 | 1.3 | N | 4.3 | 210 38 | 7 1970 | 269 |
| 22 | 336 | 2.0 | N | 4.5 | 320 30 | 12 1972 | 268 |
| 23 | 343 | 2.2 | N | 4.5 | 40 48 | 31 1966 | 269 |
| 24 | 335 | 2.8 | N | 4.6 | 60 44 | 31 1966 | 268 |
| FOR THE MONTH | | | | | | | |
| | 335 | 1.1 | N | 5.5 | 52 | | n488 |

*ALSO OCCURRED ON PRIOR DATES

-10 INDICATES MISSING DIRECTION

**PRVL DIR IS THE PREVAILING WIND DIRECTION, I. E., THE WIND DIRECTION MOST FREQUENTLY OBSERVED DURING THE GIVEN PERIOD

SOURCE: U.S. DATA BY MONTH AND BY HOUR
 OF FALLING SITE. THIS SOURCE POSSIBLE RANGE OF NEW MEXICO
 PERIOD OF RECORD 1965-1973

| NO. | MILES FLIGHT (M) | DRIVE TIME** | SCALAR DEVI | | PEAK GUST | TOTAL OHSMS |
|---------------|---------------------|-----------------|----------------|------------|--------------|----------------|
| | | | SP | SPU DAY YK | | |
| 1 | 358 2.7 | 1 | 4.7 | 60 39 | 1 1966 | 238 |
| 2 | 357 2.8 | 1 | 4.7 | 60 36 | 1 1966 | 238 |
| 3 | 355 3.2 | 1 | 4.9 | 60 33 | 1 1966 | 238 |
| 4 | 350 3.1 | 1 | 4.8 | 60 30 | 1 1966 | 239 |
| 5 | 350 3.2 | 1 | 4.7 | 55 27 | 1 1971 | 239 |
| 6 | 350 3.1 | 1 | 4.8 | 60 28 | 1 1971 | 238 |
| 7 | 3 3.2 | 1 | 4.7 | 10 28 | 23 1970* | 240 |
| 8 | 13 2.9 | 1 | 4.7 | 21 40 | 19 1973 | 239 |
| 9 | 26 2.1 | TIME | 4.5 | 60 33 | 26 1968 | 249 |
| 10 | 1 3 | 5 | 4.6 | 50 39 | 20 1968 | 246 |
| 11 | 250 3 | SSA | 5.4 | 250 42 | 19 1973 | 245 |
| 12 | 250 1.7 | SSA | 6.3 | 50 34 | 20 1968* | 244 |
| 13 | 248 2.3 | SSA | 6.6 | 250 38 | 19 1973 | 246 |
| 14 | 237 2.7 | SSA | 7.0 | 250 37 | 19 1973 | 247 |
| 15 | 230 2.6 | SSA | 7.0 | 250 40 | 1 1973 | 247 |
| 16 | 245 2.4 | SSA | 8.6 | 220 36 | 8 1966 | 247 |
| 17 | 231 1.0 | 5 | 5.5 | 240 30 | 8 1966 | 243 |
| 18 | 250 1.7 | 5 | 4.5 | 350 35 | 17 1969 | 242 |
| 19 | 240 1.6 | SSA | 4.2 | 240 36 | 26 1973* | 242 |
| 20 | 307 1.6 | 1 | 4.2 | 90 40 | 2 1967 | 243 |
| 21 | 321 1.0 | 1 | 4.4 | 90 40 | 2 1967 | 242 |
| 22 | 330 2.2 | 1 | 4.4 | 90 37 | 2 1967 | 242 |
| 23 | 340 2.4 | 1 | 4.4 | 350 34 | 27 1971 | 241 |
| 24 | 352 2.6 | 1 | 4.4 | 350 32 | 27 1971 | 241 |
| FOR THE MONTH | 528 1.4 | 1 | 5.1 | 42 | | 5816 |

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PREVAILING WIND DIRECTION
DIRECTION IS THE PREVAILING WIND DIRECTION, I. E., THE WIND
DIRECTION MOST FREQUENTLY OBSERVED DURING THE GIVEN PERIOD

WIND DIRECTION IS THE PREVAILING WIND DIRECTION, I. E., THE WIND DIRECTION MOST FREQUENTLY OBSERVED DURING THE GIVEN PERIOD.

LITERATURE CITED

1. Hoidale, M. M., M. P. Dayton, and L. Newman, December 1974, "Atmospheric Structure, White Sands Missile Range, New Mexico, Part 3, Upper Air and Surface Data: White Sands Desert Site," DR-873, Forecast Section, WSMR Meteorological Team, Meteorological Support Technical Area, Atmospheric Sciences Laboratory, U. S. Army Electronics Command, White Sands Missile Range, New Mexico.
2. Hoidale, M. M., M. P. Dayton, and L. Newman, January 1975, "Atmospheric Structure, White Sands Missile Range, New Mexico, Part 3, Upper Air and Surface Data: Holloman Site," DR-877, Forecast Section, WSMR Meteorological Team, Meteorological Support Technical Area, Atmospheric Sciences Laboratory, U. S. Army Electronics Command, White Sands Missile Range, New Mexico.
3. Hoidale, M. M., B. J. Gee, M. A. Seagraves, and G. W. Harmon, April 1969, "Atmospheric Structure, White Sands Missile Range, New Mexico, Part 3, Upper Air Data: Small Missile Range," DR-324, Meteorological Support Division, Environmental Sciences Department, U. S. Army Electronics Research and Development Activity, White Sands Missile Range, New Mexico. AD 857 332
4. Taft, P. H. and M. M. Hoidale, April 1969, "White Sands Missile Range, Climatology No. 6, Small Missile Range Site, WSMR," DR-400, Atmospheric Sciences Research Office, U. S. Army Electronics Research and Development Activity, White Sands Missile Range, New Mexico. AD 860 148
5. Hoidale, M. M., R. L. Russo, and L. Newman, May 1973, "Atmospheric Structure, White Sands Missile Range, New Mexico, Part 3, Upper Air and Surface Data: Jallen Site," DR-776, Forecast Section, WSMR Meteorological Team, Atmospheric Sciences Laboratory, U. S. Army Electronics Command, White Sands Missile Range, New Mexico. AD 762 159
6. Hoidale, M. M., B. J. Richart, and T. B. Hudson, May 1971, "Atmospheric Structure, White Sands Missile Range, New Mexico, Part 3, Upper Air Data: Apache Site," DR-621, Meteorological Support Division, Atmospheric Sciences Laboratory, White Sands Missile Range, New Mexico. AD 886 353L
7. Hoidale, M. M. and L. Newman, March 1974, "Atmospheric Structure, White Sands Missile Range, New Mexico, Part 1, Surface Wind, Cloud Cover, Visibility," DR-818, Forecast Section, WSMR Meteorological Team, Atmospheric Sciences Laboratory, U. S. Army Electronics Command, White Sands Missile Range, New Mexico. AD 776 908

LITERATURE CITED

8. Hoidale, M. M. and L. Newman, April 1974, "Atmospheric Structure, White Sands Missile Range, New Mexico, Part 2, Temperature, Relative Humidity, Dew Point, Station Pressure, Density, Clouds, Hydrometeors, and Lithometeors," DR-822, Forecast Section, WSMR Meteorological Team, Atmospheric Sciences Laboratory, U. S. Army Electronics Command, White Sands Missile Range, New Mexico. AD 779 435
9. Huschke, R. E., edited by, 1959, "Glossary of Meteorology," pp. 480, 216, 374, 437, 477, 499, American Meteorological Society, Boston, Massachusetts.
10. Brooks, C. E. and N. Carruthers, 1953: "Handbook of Statistical Methods in Meteorology," M. O. 538, Air Ministry, Meteorological Office, Her Majesty's Stationery Office, London, pp. 173, 179, 195-199.
11. Stidham, L. R., March 1962: "Computation of Rawinsonde Program," Data Reduction Division North, Holloman Air Force Base, New Mexico.
12. Hoidale, G. B., C. W. Querfeld, et al., September 1964: "Spectral Transmissivity of the Earth's Atmosphere in the 250 to 500 Wave Number Interval, Part 1, Meteorological Data Processing," Report ERDA-186, Environmental Sciences Directorate, U. S. Army Electronics Research and Development Activity, White Sands Missile Range, New Mexico. AD 448 070
13. "Reliability of Meteorological Data," IRIG Document 110-71, Revised March 1971; Inter-Range Instrumentation Group, White Sands Missile Range, New Mexico.
14. Laws, E. and J. Rivera, 1967: "Summary of Surface Weather Observations, Holloman Air Force Base," Detachment 24, 6th Weather Wing, Air Force Systems Command USAF, Air Force Missile Development Center, Holloman Air Force Base, New Mexico.